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(54) Title: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND THERAPY OF BREAST CANCER

(57) Abstract: The invention relates to compositions, kits, and methods for detecting, characterizing, preventing, and treating human breast cancers. A variety of novel markers are provided, wherein changes in the levels of expression of one or more of the markers is correlated with the presence of breast cancer.

NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
IDENTIFICATION, ASSESSMENT, PREVENTION,
AND THERAPY OF BREAST CANCER

5 RELATED APPLICATIONS

The present application claims priority to U.S. provisional application serial no. 60/176,077, filed January 14, 2000, U.S. provisional application serial no. 60/189,167, filed March 14, 2000, U.S. provisional application serial no. 60/192,099, filed March 24, 2000, U.S. provisional application serial no. 60/193,480, filed March 29, 2000, U.S.
10 provisional application serial no. 60/205,230, filed May 15, 2000, U.S. provisional application serial no. 60/211,315, filed June 9, 2000, U.S. provisional application serial no. 60/220,534, filed July 25, 2000, all of which are expressly incorporated by reference.

FIELD OF THE INVENTION

15 The field of the invention is breast cancer, including diagnosis, characterization, management, and therapy of breast cancer.

BACKGROUND OF THE INVENTION

The increased number of cancer cases reported in the United States, and, indeed,
20 around the world, is a major concern. Currently there are only a handful of treatments available for specific types of cancer, and these provide no absolute guarantee of success. In order to be most effective, these treatments require not only an early detection of the malignancy, but a reliable assessment of the severity of the malignancy.

The incidence of breast cancer, a leading cause of death in women, has been
25 gradually increasing in the United States over the last thirty years. In 1997, it was estimated that 181,000 new cases were reported in the U.S., and that 44,000 people would die of breast cancer (Parker *et al.*, 1997, *CA Cancer J. Clin.* 47:5-27; Chu *et al.*, 1996, *J. Nat. Cancer Inst.* 88:1571-1579). While the pathogenesis of breast cancer is unclear, transformation of normal breast epithelium to a malignant phenotype may be
30 the result of genetic factors, especially in women under 30 (Miki *et al.*, 1994, *Science*, 266:66-71). The discovery and characterization of *BRCA1* and *BRCA2* has recently expanded our knowledge of genetic factors which can contribute to familial breast

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cancer. Germ-line mutations within these two loci are associated with a 50 to 85% lifetime risk of breast and/or ovarian cancer (Casey, 1997, *Curr. Opin. Oncol.* 9:88-93; Marcus *et al*, 1996, *Cancer* 77:697-709). However, it is likely that other, non-genetic factors also have a significant effect on the etiology of the disease. Regardless of its
5 origin, breast cancer morbidity and mortality increases significantly if it is not detected early in its progression. Thus, considerable effort has focused on the early detection of cellular transformation and tumor formation in breast tissue.

Currently, the principal manner of identifying breast cancer is through detection of the presence of dense tumorous tissue. This may be accomplished to varying degrees
10 of effectiveness by direct examination of the outside of the breast, or through mammography or other X-ray imaging methods (Jatoi, 1999, *Am. J. Surg.* 177:518-524). The latter approach is not without considerable cost, however. Every time a mammogram is taken, the patient incurs a small risk of having a breast tumor induced by the ionizing properties of the radiation used during the test. In addition, the process is
15 expensive and the subjective interpretations of a technician can lead to imprecision, *e.g.*, one study showed major clinical disagreements for about one-third of a set of mammograms that were interpreted individually by a surveyed group of radiologists. Moreover, many women find that undergoing a mammogram is a painful experience. Accordingly, the National Cancer Institute has not recommended mammograms for
20 women under fifty years of age, since this group is not as likely to develop breast cancers as are older women. It is compelling to note, however, that while only about 22% of breast cancers occur in women under fifty, data suggests that breast cancer is more aggressive in pre-menopausal women.

It would therefore be beneficial to provide specific methods and reagents for the
25 diagnosis, staging, prognosis, monitoring, and treatment of diseases associated with breast cancer, or to indicate a predisposition to such for preventative measures.

SUMMARY OF THE INVENTION

The invention relates to novel genes associated with breast cancer as well as
30 methods of assessing whether a patient is afflicted with breast cancer. The methods of the present invention comprise the step of comparing the level of expression of a marker in a patient sample, wherein the marker is listed in Tables 1-6 and the normal level of

expression of the marker in a control, *e.g.*, a sample from a patient without breast cancer. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with breast cancer. Preferably, a protein corresponding to the marker is a secreted protein or
5 is predicted to correspond to a secreted protein. Alternatively, the marker can correspond to a protein having an extracellular portion, to one which is normally expressed in breast tissue at a detectable level, or both.

In one method, the marker(s) are preferably selected such that the positive predictive value of the method is at least about 10%. Also preferred are embodiments of
10 the method wherein the marker is over- or under-expressed by at least two-fold in at least about 20% of stage 0 breast cancer patients, stage I breast cancer patients, stage IIA breast cancer patients, stage IIB breast cancer patients, stage IIIA breast cancer patients, stage IIIB breast cancer patients, stage IV breast cancer patients, grade I breast cancer patients, grade II breast cancer patients, grade III breast cancer patients, malignant breast
15 cancer patients, ductal carcinoma breast cancer patients, and lobular carcinoma breast cancer patients.

In one embodiment of the methods of the present invention, the patient sample is a breast tissue-associated body fluid. Such fluids include, for example, blood fluids, lymph and cystic fluids, as well as nipple aspirates. In another embodiment, the sample
20 comprises cells obtained from the patient. In another embodiment, the patient sample is *in vivo*.

In accordance with the methods of the present invention, the level of expression of the marker in a sample can be assessed, for example, by detecting the presence in the sample of:

- 25 • a protein or a fragment of the protein corresponding to the marker (*e.g.* using a reagent, such as an antibody, an antibody derivative, or an antibody fragment, which binds specifically with the protein or a fragment of the protein)
- a metabolite which is produced directly (*i.e.*, catalyzed) or indirectly by a
30 protein corresponding to the marker
- a transcribed polynucleotide (*e.g.* an mRNA or a cDNA), or fragment thereof, having at least a portion with which the marker is substantially

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homologous (*e.g.* by contacting a mixture of transcribed polynucleotides obtained from the sample with a substrate having one or more of the markers listed in Tables 1-6 fixed thereto at selected positions)

- a transcribed polynucleotide or fragment thereof, wherein the polynucleotide anneals with the marker under stringent hybridization conditions.

The methods of the present invention are particularly useful for patients with an identified breast mass or symptoms associated with breast cancer. The methods of the present invention can also be of particular use with patients having an enhanced risk of developing breast cancer (*e.g.*, patients having a familial history of breast cancer, patients identified as having a mutant oncogene, and patients at least about 50 years of age). The methods of the present invention may further be of particular use in monitoring the efficacy of treatment of a breast cancer patient (*e.g.* the efficacy of chemotherapy).

The methods of the present invention may be performed using a plurality (*e.g.* 2, 3, 5, or 10 or more) of markers. According to a method involving a plurality of markers, the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-6 is compared with the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with breast cancer. A significantly enhanced level of expression of one or more of the markers listed in Tables 1-6 in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with breast cancer. The markers of Tables 1-6 may also be used in combination with known breast cancer markers in the methods of the present invention.

In a preferred method of assessing whether a patient is afflicted with breast cancer (*e.g.*, new detection ("screening"), detection of recurrence, reflex testing), the method comprises comparing:

- a) the level of expression of a marker in a patient sample, wherein at least one marker is selected from the markers of Tables 1-6, and
- b) the normal level of expression of the marker in a control non-breast cancer sample.

A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with breast cancer.

The methods of the present invention further include a method of assessing the efficacy of a test compound for inhibiting breast cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient and maintained in the presence of the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6, and
- b) expression of the marker in a second sample obtained from the patient and maintained in the absence of the test compound.

A significantly lower level of expression of the marker in the first sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting breast cancer in the patient. For example, the first and second samples can be portions of a single sample obtained from the patient or portions of pooled samples obtained from the patient.

The invention further relates to a method of assessing the efficacy of a therapy for inhibiting breast cancer in a patient. This method comprises comparing:

- a) expression of a marker in a first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy.

A significantly lower level of expression of the marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting breast cancer in the patient.

It will be appreciated that in these methods the "therapy" may be any therapy for treating breast cancer including, but not limited to, chemotherapy, radiation therapy and surgical removal of tissue, *e.g.*, a breast tumor. Thus, the methods of the invention may

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be used to evaluate a patient before, during and after therapy, for example, to evaluate the reduction in tumor burden.

The present invention therefore further comprises a method for monitoring the progression of breast cancer in a patient, the method comprising:

- 5 a) detecting in a patient sample at a first time point, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6;
- b) repeating step a) at a subsequent time point; and
- c) comparing the level of expression detected in steps a) and b), and therefrom
- 10 monitoring the progression of breast cancer in the patient.

The invention also includes a method of selecting a composition for inhibiting breast cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a
- 15 plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-6 in each of the aliquots; and
- d) selecting one of the test compositions which induces a lower level of expression of the marker in the aliquot containing that test composition,
- 20 relative to other test compositions.

In addition, the invention includes a method of inhibiting breast cancer in a patient. This method comprises the steps of:

- a) obtaining a sample comprising cancer cells from the patient;
- b) separately maintaining aliquots of the sample in the presence of a
- 25 plurality of test compositions;
- c) comparing expression of a marker listed in Tables 1-6 in each of the aliquots; and
- d) administering to the patient at least one of the test compositions which induces a lower level of expression of the marker in the aliquot
- 30 containing that test composition, relative to other test compositions.

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The invention also includes a kit for assessing whether a patient is afflicted with breast cancer. This kit comprises reagents for assessing expression of a marker listed in Tables 1-6.

5 In another aspect, the invention relates to a kit for assessing the suitability of each of a plurality of compounds for inhibiting breast cancer in a patient. The kit comprises a reagent for assessing expression of a marker listed in Tables 1-6, and may also comprise a plurality of compounds.

In another aspect, the invention relates to a kit for assessing the presence of breast cancer cells. This kit comprises an antibody, wherein the antibody binds specifically
10 with a protein corresponding to a marker listed in Tables 1-6. The kit may also comprise a plurality of antibodies, wherein the plurality binds specifically with a protein corresponding to a different marker which is also listed in Tables 1-6.

The invention also includes a kit for assessing the presence of breast cancer cells, wherein the kit comprises a nucleic acid probe. The probe binds specifically with a
15 transcribed polynucleotide corresponding to a marker listed in Tables 1-6. The kit may also comprise a plurality of probes, wherein each of the probes binds specifically with a transcribed polynucleotide corresponding to a different marker listed in Tables 1-6.

The invention further relates to a method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with breast
20 cancer. The method comprises isolating a protein or protein fragment corresponding to a marker listed in Tables 1-6, immunizing a mammal using the isolated protein or protein fragment, isolating splenocytes from the immunized mammal, fusing the isolated splenocytes with an immortalized cell line to form hybridomas, and screening individual hybridomas for production of an antibody which specifically binds with the protein or
25 protein fragment to isolate the hybridoma. The invention also includes an antibody produced by this method.

The invention further includes a method of assessing the breast carcinogenic or irregular growth promoting potential of a test compound. This method comprises the steps of:

- 30
- a) maintaining separate aliquots of breast cells in the presence and absence of the test compound; and
 - b) comparing expression of a marker in each of the aliquots.

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The marker is selected from those listed in Tables 1-6. A significantly enhanced level of expression of the marker in the aliquot maintained in the presence of (or exposed to) the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound possesses breast carcinogenic or irregular growth promoting potential.

Additionally, the invention includes a kit for assessing the breast carcinogenic potential of a test compound. The kit comprises breast cells and a reagent for assessing expression of a marker in each of the aliquots. The marker is selected from those listed in Tables 1-6.

The invention further includes a method of treating a patient afflicted with breast cancer, comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker listed in Tables 1-6.

The invention includes a method of inhibiting breast cancer in a patient at risk for developing breast cancer. This method comprises inhibiting expression or overexpression of a gene corresponding to a marker listed in Tables 1-6.

It will be appreciated that the methods and kits of the present invention may also include known cancer markers including known breast cancer markers. It will further be appreciated that the methods and kits may be used to identify cancers other than breast cancer.

DETAILED DESCRIPTION OF THE INVENTION

The invention relates to newly discovered correlations between expression of certain markers and the cancerous state of breast cells. It has been discovered that the level of expression of individual markers and combinations of markers described herein correlates with the presence of breast cancer in a patient. Methods are provided for detecting the presence of breast cancer in a sample, the absence of breast cancer in a sample, the stage of breast cancer, and other characteristics of breast cancer that are relevant to prevention, diagnosis, characterization, and therapy of breast cancer in a patient.

Definitions

As used herein, each of the following terms has the meaning associated with it in this section.

The articles "a" and "an" are used herein to refer to one or to more than one (*i.e.* to at least one) of the grammatical object of the article. By way of example, "an element" means one element or more than one element.

A "marker" is a naturally-occurring polymer corresponding to at least one of the novel nucleic acids listed in Tables 1-6. For example, markers include, without limitation, sense and anti-sense strands of genomic DNA (*i.e.* including any introns occurring therein), RNA generated by transcription of genomic DNA (*i.e.* prior to splicing), RNA generated by splicing of RNA transcribed from genomic DNA, and proteins generated by translation of spliced RNA (*e.g.* including proteins both before and after cleavage of normally cleaved regions such as transmembrane signal sequences). As used herein, "marker" may also include a cDNA made by reverse transcription of an RNA generated by transcription of genomic DNA (including spliced RNA).

As used herein a "polynucleotide corresponds to" another (a first) polynucleotide if it is related to the first polynucleotide by any of the following relationships: 1) The second polynucleotide comprises the first polynucleotide and the second polynucleotide encodes a gene product. 2) The second polynucleotide is 5' or 3' to the first polynucleotide in cDNA, RNA, genomic DNA, or fragment of any of these polynucleotides. For example, a second polynucleotide may be fragment of a gene that includes the first and second polynucleotides. The first and second polynucleotides are related in that they are components of the gene coding for a gene product, such as a protein or antibody. However, it is not necessary that the second polynucleotide comprises or overlaps with the first polynucleotide to be encompassed within the definition of "corresponding to" as used herein. For example, the first polynucleotide may be a fragment of a 3' untranslated region of the second polynucleotide. The first and second polynucleotide may be fragments of a gene coding for a gene product. The second polynucleotide may be an exon of the gene while the first polynucleotide may be an intron of the gene. 3) The second polynucleotide is the complement of the first polynucleotide.

The term "probe" refers to any molecule which is capable of selectively binding to a specifically intended target molecule, for example a marker of the invention.

Probes can be either synthesized by one skilled in the art, or derived from appropriate biological preparations. For purposes of detection of the target molecule, probes may be specifically designed to be labeled, as described herein. Examples of molecules that can be utilized as probes include, but are not limited to, RNA, DNA, proteins, antibodies, and organic monomers.

A "breast-associated" body fluid is a fluid which, when in the body of a patient, contacts or passes through breast cells or into which cells, nucleic acids or proteins shed from breast cells are capable of passing. Exemplary breast-associated body fluids include blood fluids, lymph, cystic fluid, urine and nipple aspirates.

The "normal" level of expression of a marker is the level of expression of the marker in breast cells of a patient, *e.g.* a human, not afflicted with breast cancer.

"Over-expression" and "under-expression" of a marker refer to expression of the marker of a patient at a greater or lesser level, respectively, than normal level of expression of the marker (*e.g.* at least two-fold greater or lesser level).

As used herein, the term "promoter/regulatory sequence" means a nucleic acid sequence which is required for expression of a gene product operably linked to the promoter/regulatory sequence. In some instances, this sequence may be the core promoter sequence and in other instances, this sequence may also include an enhancer sequence and other regulatory elements which are required for expression of the gene product. The promoter/regulatory sequence may, for example, be one which expresses the gene product in a tissue-specific manner.

A "constitutive" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell under most or all physiological conditions of the cell.

An "inducible" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only when an inducer which corresponds to the promoter is present in the cell.

A "tissue-specific" promoter is a nucleotide sequence which, when operably linked with a polynucleotide which encodes or specifies a gene product, causes the gene product to be produced in a living human cell substantially only if the cell is a cell of the tissue type corresponding to the promoter.

5 A "transcribed polynucleotide" is a polynucleotide (*e.g.* an RNA, a cDNA, or an analog of one of an RNA or cDNA) which is complementary to or homologous with all or a portion of a mature RNA made by transcription of a genomic DNA corresponding to a marker of the invention and normal post-transcriptional processing (*e.g.* splicing), if any, of the transcript.

10 "Complementary" refers to the broad concept of sequence complementarity between regions of two nucleic acid strands or between two regions of the same nucleic acid strand. It is known that an adenine residue of a first nucleic acid region is capable of forming specific hydrogen bonds ("base pairing") with a residue of a second nucleic acid region which is antiparallel to the first region if the residue is thymine or uracil.

15 Similarly, it is known that a cytosine residue of a first nucleic acid strand is capable of base pairing with a residue of a second nucleic acid strand which is antiparallel to the first strand if the residue is guanine. A first region of a nucleic acid is complementary to a second region of the same or a different nucleic acid if, when the two regions are arranged in an antiparallel fashion, at least one nucleotide residue of the first region is

20 capable of base pairing with a residue of the second region. Preferably, the first region comprises a first portion and the second region comprises a second portion, whereby, when the first and second portions are arranged in an antiparallel fashion, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residues of the first portion are capable of base pairing with nucleotide

25 residues in the second portion. More preferably, all nucleotide residues of the first portion are capable of base pairing with nucleotide residues in the second portion.

"Homologous" as used herein, refers to nucleotide sequence similarity between two regions of the same nucleic acid strand or between regions of two different nucleic acid strands. When a nucleotide residue position in both regions is occupied by the

30 same nucleotide residue, then the regions are homologous at that position. A first region is homologous to a second region if at least one nucleotide residue position of each region is occupied by the same residue. Homology between two regions is expressed in

terms of the proportion of nucleotide residue positions of the two regions that are occupied by the same nucleotide residue. By way of example, a region having the nucleotide sequence 5'-ATTGCC-3' and a region having the nucleotide sequence 5'-TATGGC-3' share 50% homology. Preferably, the first region comprises a first portion
5 and the second region comprises a second portion, whereby, at least about 50%, and preferably at least about 75%, at least about 90%, or at least about 95% of the nucleotide residue positions of each of the portions are occupied by the same nucleotide residue. More preferably, all nucleotide residue positions of each of the portions are occupied by the same nucleotide residue.

10 A marker is "fixed" to a substrate if it is covalently or non-covalently associated with the substrate such the substrate can be rinsed with a fluid (e.g. standard saline citrate, pH 7.4) without a substantial fraction of the marker dissociating from the substrate.

As used herein, a "naturally-occurring" nucleic acid molecule refers to an RNA or
15 DNA molecule having a nucleotide sequence that occurs in nature (e.g. encodes a natural protein).

Expression of a marker in a patient is "significantly" higher or lower than the normal level of expression of a marker if the level of expression of the marker is greater or less, respectively, than the normal level by an amount greater than the standard error
20 of the assay employed to assess expression, and preferably at least twice, and more preferably three, four, five or ten times that amount. Alternately, expression of the marker in the patient can be considered "significantly" higher or lower than the normal level of expression if the level of expression is at least about two, and preferably at least about three, four, or five times, higher or lower, respectively, than the normal level of
25 expression of the marker.

Breast cancer is "inhibited" if at least one symptom of the cancer is alleviated, terminated, slowed, or prevented. As used herein, breast cancer is also "inhibited" if recurrence or metastasis of the cancer is reduced, slowed, delayed, or prevented.

A kit is any manufacture (e.g. a package or container) comprising at least one
30 reagent, e.g. a probe, for specifically detecting a marker of the invention, the manufacture being promoted, distributed, or sold as a unit for performing the methods of the present invention.

Description

The present invention is based, in part, on identification of novel markers which are expressed at a different level in breast cancer cells than they are in normal (*i.e.* non-cancerous) breast cells. The markers of the invention correspond to nucleic acid and polypeptide molecules which can be detected in one or both of normal and cancerous breast cells. The presence, absence, or level of expression of one or more of these markers in breast cells is herein correlated with the cancerous state of the tissue. The invention thus includes compositions, kits, and methods for assessing the cancerous state of breast cells (*e.g.* cells obtained from a human, cultured human cells, archived or preserved human cells and *in vivo* cells).

The compositions, kits, and methods of the invention have the following uses, among others:

- 1) assessing whether a patient is afflicted with breast cancer;
- 15 2) assessing the stage of breast cancer in a human patient;
- 3) assessing the grade of breast cancer in a patient;
- 4) assessing the benign or malignant nature of breast cancer in a patient;
- 5) assessing the histological type of neoplasm (*e.g.* ductal, lobular, etc.) associated with breast cancer in a patient;
- 20 6) making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with breast cancer;
- 7) assessing the presence of breast cancer cells;
- 8) assessing the efficacy of one or more test compounds for inhibiting breast cancer in a patient;
- 25 9) assessing the efficacy of a therapy for inhibiting breast cancer in a patient;
- 10) monitoring the progression of breast cancer in a patient;
- 11) selecting a composition or therapy for inhibiting breast cancer in a patient;
- 30 12) treating a patient afflicted with breast cancer;
- 13) inhibiting breast cancer in a patient;
- 14) assessing the carcinogenic potential of a test compound; and

- 15) inhibiting breast cancer in a patient at risk for developing breast cancer.

The invention thus includes a method of assessing whether a patient is afflicted with breast cancer. This method comprises comparing the level of expression of a marker in a patient sample and the normal level of expression of the marker in a control, *e.g.*, a non-breast cancer sample. A significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with breast cancer. The marker is selected from the group consisting of the markers listed in Tables 1-6.

- 10 The polynucleotides set forth in Tables 1-6 represent previously unidentified nucleotide sequences. These nucleotide sequences were identified through subtracted library experiments described herein. In Tables 1 and 3, SEQ ID NOS 316-470, 793-890, 1255-1363, 2125-2454 and 3352-3626 are preferred and SEQ ID NOS 1-315, 676-792, 1056-1254, 1645-2124 and 2942-3351 are most preferred. In Tables 2 and 4, SEQ ID NOS: 1879-1959 are preferred and SEQ ID NOS: 1-1878 are most preferred. Also provided by this invention are polynucleotides that correspond to the polynucleotides of Tables 1-6. In one embodiment, these polynucleotides are obtained by identification of a larger fragment or full-length coding sequence of these polynucleotides. Gene delivery vehicles, host cells, compositions and databases (all describe herein) containing these polynucleotides are also provided by this invention.

- 25 The invention also encompasses polynucleotides which differ from that of the polynucleotides described above, but which produce the same phenotypic effect, *e.g.* allelic variants. These altered, but phenotypically equivalent polynucleotides are referred to "equivalent nucleic acids." This invention also encompasses polynucleotides characterized by changes in non-coding regions that do not alter the polypeptide produced therefrom when compared to the polynucleotide herein. This invention further encompasses polynucleotides, which hybridize to the polynucleotides of the subject invention under conditions of moderate or high stringency. Alternatively, the polynucleotides are at least 85%, or at least 90%, or more preferably, greater or equal to 30 95% identical as determined by a sequence alignment program when run under default parameters.

Any marker or combination of markers listed in Tables 1-6, as well as any known markers in combination with the markers set forth in Tables 1-6, may be used in the compositions, kits, and methods of the present invention. In general, it is preferable to use markers for which the difference between the level of expression of the marker in breast cancer cells and the level of expression of the same marker in normal breast cells is as great as possible. Although this difference can be as small as the limit of detection of the method for assessing expression of the marker, it is preferred that the difference be at least greater than the standard error of the assessment method, and preferably a difference of at least 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10-, 15-, 20-, 25-, 100-, 500-, 1000-fold or greater.

It is recognized that certain markers correspond to proteins which are secreted from breast cells (*i.e.* one or both of normal and cancerous cells) to the extracellular space surrounding the cells. These markers are preferably used in certain embodiments of the compositions, kits, and methods of the invention, owing to the fact that the protein corresponding to each of these markers can be detected in an breast-associated body fluid sample, which may be more easily collected from a human patient than a tissue biopsy sample. In addition, preferred *in vivo* techniques for detection of a protein corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the protein. For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

Although not every marker corresponding to a secreted protein is indicated as such herein, it is a simple matter for the skilled artisan to determine whether any particular marker corresponds to a secreted protein. In order to make this determination, the protein corresponding to a marker is expressed in a test cell (*e.g.* a cell of a breast cell line), extracellular fluid is collected, and the presence or absence of the protein in the extracellular fluid is assessed (*e.g.* using a labeled antibody which binds specifically with the protein).

The following is an example of a method which can be used to detect secretion of a protein corresponding to a marker of the invention. About 8×10^5 293T cells are incubated at 37°C in wells containing growth medium (Dulbecco's modified Eagle's medium {DMEM} supplemented with 10% fetal bovine serum) under a 5% (v/v) CO₂,

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95% air atmosphere to about 60-70% confluence. The cells are then transfected using a standard transfection mixture comprising 2 micrograms of DNA comprising an expression vector encoding the protein and 10 microliters of LipofectAMINE™ (GIBCO/BRL Catalog no. 18342-012) per well. The transfection mixture is maintained
5 for about 5 hours, and then replaced with fresh growth medium and maintained in an air atmosphere. Each well is gently rinsed twice with DMEM which does not contain methionine or cysteine (DMEM-MC; ICN Catalog no. 16-424- 54). About 1 milliliter of DMEM-MC and about 50 microcuries of Trans-³⁵S™ reagent (ICN Catalog no. 51006) are added to each well. The wells are maintained under the 5% CO₂ atmosphere
10 described above and incubated at 37°C for a selected period. Following incubation, 150 microliters of conditioned medium is removed and centrifuged to remove floating cells and debris. The presence of the protein in the supernatant is an indication that the protein is secreted.

Examples of breast-associated body fluids include blood fluids (*e.g.* whole blood,
15 blood serum, blood having platelets removed therefrom, etc.), lymph, ascitic fluid, cystic fluid, urine and nipple aspirates. In these embodiments, the level of expression of the marker can be assessed by assessing the amount (*e.g.* absolute amount or concentration) of the marker in a breast-associated body fluid obtained from a patient. The fluid can, of course, be subjected to a variety of well-known post-collection preparative and storage
20 techniques (*e.g.* storage, freezing, ultrafiltration, concentration, evaporation, centrifugation, etc.) prior to assessing the amount of the marker in the fluid.

Many breast-associated body fluids (*i.e.* usually excluding urine) can have breast cells therein, particularly when the breast cells are cancerous, and, more particularly, when the breast cancer is metastasizing. Thus, the compositions, kits, and methods of
25 the invention can be used to detect expression of markers corresponding to proteins having at least one portion which is displayed on the surface of cells which express it. It is a simple matter for the skilled artisan to determine whether the protein corresponding to any particular marker comprises a cell-surface protein. For example, immunological methods may be used to detect such proteins on whole cells, or well
30 known computer-based sequence analysis methods (*e.g.* the SIGNALP program; Nielsen *et al.*, 1997, *Protein Engineering* 10:1-6) may be used to predict the presence of at least one extracellular domain (*i.e.* including both secreted proteins and proteins having at

least one cell-surface domain). Expression of a marker corresponding to a protein having at least one portion which is displayed on the surface of a cell which expresses it may be detected without necessarily lysing the cell (*e.g.* using a labeled antibody which binds specifically with a cell-surface domain of the protein).

- 5 Expression of a marker of the invention may be assessed by any of a wide variety of well known methods for detecting expression of a transcribed molecule or protein. Non-limiting examples of such methods include immunological methods for detection of secreted, cell-surface, cytoplasmic, or nuclear proteins, protein purification methods, protein function or activity assays, nucleic acid hybridization methods, nucleic acid
10 reverse transcription methods, and nucleic acid amplification methods.

- In a preferred embodiment, expression of a marker is assessed using an antibody (*e.g.* a radio-labeled, chromophore-labeled, fluorophore-labeled, or enzyme-labeled antibody), an antibody derivative (*e.g.* an antibody conjugated with a substrate or with the protein or ligand of a protein-ligand pair {*e.g.* biotin-streptavidin}), or an antibody
15 fragment (*e.g.* a single-chain antibody, an isolated antibody hypervariable domain, etc.) which binds specifically with a protein or a fragment thereof, corresponding to the marker, such as the protein encoded by the open reading frame corresponding to the marker or such a protein which has undergone all or a portion of its normal post-translational modification.

- 20 In another preferred embodiment, expression of a marker is assessed by preparing mRNA/cDNA (*i.e.* a transcribed polynucleotide) from cells in a patient sample, and by hybridizing the mRNA/cDNA with a reference polynucleotide which is a complement of a polynucleotide comprising the marker, and fragments thereof. cDNA can, optionally, be amplified using any of a variety of polymerase chain reaction methods prior to
25 hybridization with the reference polynucleotide; preferably, it is not amplified.

- Expression of one or more markers can likewise be detected using quantitative PCR to assess the level of expression of the marker(s). Alternatively, any of the many known methods of detecting mutations or variants (*e.g.* single nucleotide polymorphisms, deletions, etc.) of a marker of the invention may be used to detect occurrence of a
30 marker in a patient.

In a related embodiment, a mixture of transcribed polynucleotides obtained from the sample is contacted with a substrate having fixed thereto a polynucleotide complementary to or homologous with at least a portion (*e.g.* at least 7, 10, 15, 20, 25, 30, 40, 50, 100, 500, or more nucleotide residues) of a marker of the invention. If
5 polynucleotides complementary to or homologous with are differentially detectable on the substrate (*e.g.* detectable using different chromophores or fluorophores, or fixed to different selected positions), then the levels of expression of a plurality of markers can be assessed simultaneously using a single substrate (*e.g.* a "gene chip" microarray of polynucleotides fixed at selected positions). When a method of assessing marker
10 expression is used which involves hybridization of one nucleic acid with another, it is preferred that the hybridization be performed under stringent hybridization conditions.

Because the compositions, kits, and methods of the invention rely on detection of a difference in expression levels of one or more markers of the invention, it is preferable that the level of expression of the marker is significantly greater than the minimum
15 detection limit of the method used to assess expression in at least one of normal breast cells and cancerous breast cells.

It is understood that by routine screening of additional patient samples using one or more of the markers of the invention, it will be realized that certain of the markers are over- or under-expressed in cancers of various types, including specific breast cancers,
20 as well as other cancers such as ovarian cancer, cervical cancer, etc. For example, it will be confirmed that some of the markers of the invention are over- or under-expressed in most (*i.e.* 50% or more) or substantially all (*i.e.* 80% or more) of breast cancer. Furthermore, it will be confirmed that certain of the markers of the invention are associated with breast cancer of various stages (*i.e.* stage 0, I, II, III, and IV breast
25 cancers, as well as subclassifications IIA, IIB, IIIA, and IIIB, using the FIGO Stage Grouping system for primary carcinoma of the breast; (see Breast, In: *American Joint Committee on Cancer: AJCC Cancer Staging Manual*. Lippincott-Raven Publishers, 5th ed., 1997, pp. 171-180), of various histologic subtypes (*e.g.* serous, mucinous, endometrioid, and clear cell subtypes, as well as subclassifications and alternate
30 classifications adenocarcinoma, papillary adenocarcinoma, papillary cystadenocarcinoma, surface papillary carcinoma, malignant adeno-fibroma, cystadenofibroma, adenocarcinoma, cystadenocarcinoma, adenoacanthoma,

endometrioid stromal sarcoma, mesodermal (Müllerian) mixed tumor, mesonephroid tumor, malignant carcinoma, Brenner tumor, mixed epithelial tumor, and undifferentiated carcinoma, using the WHO/FIGO system for classification of malignant breast tumors; Scully, *Atlas of Tumor Pathology*, 3d series, Washington DC), and various grades (*i.e.* grade I {well differentiated} , grade II {moderately well differentiated}, and grade III {poorly differentiated from surrounding normal tissue}). In addition, as a greater number of patient samples are assessed for expression of the markers of the invention and the outcomes of the individual patients from whom the samples were obtained are correlated, it will also be confirmed that altered expression of certain of the markers of the invention are strongly correlated with malignant cancers and that altered expression of other markers of the invention are strongly correlated with benign tumors. The compositions, kits, and methods of the invention are thus useful for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of breast cancer in patients. In addition, these compositions, kits, and methods can be used to detect and differentiate lobular and ductal carcinoma breast cancers.

When the compositions, kits, and methods of the invention are used for characterizing one or more of the stage, grade, histological type, and benign/malignant nature of breast cancer in a patient, it is preferred that the marker or panel of markers of the invention is selected such that a positive result is obtained in at least about 20%, and preferably at least about 40%, 60%, or 80%, and more preferably in substantially all patients afflicted with an breast cancer of the corresponding stage, grade, histological type, or benign/malignant nature. Preferably, the marker or panel of markers of the invention is selected such that a PPV of greater than about 10% is obtained for the general population (more preferably coupled with an assay specificity greater than 99.5%).

When a plurality of markers of the invention are used in the compositions, kits, and methods of the invention, the level of expression of each marker in a patient sample can be compared with the normal level of expression of each of the plurality of markers in non-cancerous samples of the same type, either in a single reaction mixture (*i.e.* using reagents, such as different fluorescent probes, for each marker) or in individual reaction mixtures corresponding to one or more of the markers. In one embodiment, a significantly enhanced level of expression of more than one of the plurality of markers

in the sample, relative to the corresponding normal levels, is an indication that the patient is afflicted with breast cancer. In another embodiment, a significantly lower level of expression in the sample of each of the plurality of markers, relative to the corresponding normal levels, is an indication that the patient is afflicted with breast cancer. In yet another embodiment, a significantly enhanced level of expression of one or more markers and a significantly lower level of expression of one or more markers in a sample relative to the corresponding normal levels, is an indication that the patient is afflicted with breast cancer. When a plurality of markers is used, it is preferred that 2, 3, 4, 5, 8, 10, 12, 15, 20, 30, or 50 or more individual markers be used, wherein fewer markers are preferred.

In order to maximize the sensitivity of the compositions, kits, and methods of the invention (*i.e.* by interference attributable to cells of non-breast origin in a patient sample), it is preferable that the marker of the invention used therein be a marker which has a restricted tissue distribution, *e.g.*, normally not expressed in a non-breast tissue.

Only a small number of markers are known to be associated with breast cancers (*e.g.* *BRCA1* and *BRCA2*). These markers are not, of course, included among the markers of the invention, although they may be used together with one or more markers of the invention in a panel of markers, for example. It is well known that certain types of genes, such as oncogenes, tumor suppressor genes, growth factor-like genes, protease-like genes, and protein kinase-like genes are often involved with development of cancers of various types. Thus, among the markers of the invention, use of those which correspond to proteins which resemble known proteins encoded by known oncogenes and tumor suppressor genes, and those which correspond to proteins which resemble growth factors, proteases, and protein kinases are preferred.

Known oncogenes and tumor suppressor genes include, for example, *abl*, *abr*, *akt2*, *apc*, *bcl2 α* , *bcl2 β* , *bcl3*, *bcr*, *brca1*, *brca2*, *cbl*, *ccnd1*, *cdc42*, *cdk4*, *crk- II*, *csf1r/fms*, *dbl*, *dcc*, *dpc4/smad4*, *e-cad*, *e2f1/rbap*, *egfr/erbB-1*, *elk1*, *elk3*, *eph*, *erg*, *ets1*, *ets2*, *fer*, *fgr/src2*, *fli1/ergb2*, *fos*, *fps/fes*, *fra1*, *fra2*, *fyn*, *hck*, *hek*, *her2/erbB- 2/neu*, *her3/erbB-3*, *her4/erbB-4*, *hras1*, *hst2*, *hstf1*, *igfbp2*, *ink4a*, *ink4b*, *int2/lfgf3*, *jun*, *junb*, *jund*, *kip2*, *kit*, *kras2a*, *kras2b*, *lck*, *lyn*, *mas*, *max*, *mcc*, *mdm2*, *met*, *mlh1*, *mmp10*, *mos*, *msh2*, *msh3*, *msh6*, *myb*, *myba*, *mybb*, *myc*, *mycl1*, *mycn*, *nf1*, *nf2*, *nme2*, *nras*, *p53*, *pdgfb*, *phb*, *pim1*, *pms1*, *pms2*, *ptc*, *pten*, *raf1*, *rap1a*, *rbl*, *rel*, *ret*, *ros1*, *ski*, *src1*, *tall*,

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tgfbr2, tgfb3, tgfbr3, thral, thrb, tiam1, timp3, tjp1, tp53, trk, vav, vhl, vil2, waf1, wnt1, wnt2, wt1, and yes1 (Hesketh, 1997, In: *The Oncogene and Tumour Suppressor Gene Facts Book*, 2nd Ed., Academic Press; Fishel *et al.*, 1994, *Science* 266:1403-1405).

Known growth factors include platelet-derived growth factor alpha, platelet-
 5 derived growth factor beta (simian sarcoma viral {v-sis} oncogene homolog),
 thrombopoietin (myeloproliferative leukemia virus oncogene ligand, megakaryocyte
 growth and development factor), erythropoietin, B cell growth factor, macrophage
 stimulating factor 1 (hepatocyte growth factor-like protein), hepatocyte growth factor
 (hepapoietin A), insulin-like growth factor 1 (somatomedia C), hepatoma-derived
 10 growth factor, amphiregulin (schwannoma-derived growth factor), bone morphogenetic
 proteins 1, 2, 3, 3 beta, and 4, bone morphogenetic protein 7 (osteogenic protein 1), bone
 morphogenetic protein 8 (osteogenic protein 2), connective tissue growth factor,
 connective tissue activation peptide 3, epidermal growth factor (EGF), teratocarcinoma-
 derived growth factor 1, endothelin, endothelin 2, endothelin 3, stromal cell-derived
 15 factor 1, vascular endothelial growth factor (VEGF), VEGF-B, VEGF-C, placental
 growth factor (vascular endothelial growth factor-related protein), transforming growth
 factor alpha, transforming growth factor beta 1 and its precursors, transforming growth
 factor beta 2 and its precursors, fibroblast growth factor 1 (acidic), fibroblast growth
 factor 2 (basic), fibroblast growth factor 5 and its precursors, fibroblast growth factor 6
 20 and its precursors, fibroblast growth factor 7 (keratinocyte growth factor), fibroblast
 growth factor 8 (androgen-induced), fibroblast growth factor 9 (glia-activating factor),
 pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1),
 brain-derived neurotrophic factor, and recombinant glial growth factor 2.

Known proteases include interleukin-1 beta convertase and its precursors, Mch6
 25 and its precursors, Mch2 isoform alpha, Mch4, Cpp32 isoform alpha, Lice2 gamma
 cysteine protease, Ich-1S, Ich-1L, Ich-2 and its precursors, TY protease, matrix
 metalloproteinase 1 (interstitial collagenase), matrix metalloproteinase 2 (gelatinase A,
 72kD gelatinase, 72kD type IV collagenase), matrix metalloproteinase 7 (matrilysin),
 matrix metalloproteinase 8 (neutrophil collagenase), matrix metalloproteinase 12
 30 (macrophage elastase), matrix metalloproteinase 13 (collagenase 3), metalloproteinase 1,
 cysteine-rich metalloproteinase (disintegrin) and its precursors, subtilisin-like protease Pc8
 and its precursors, chymotrypsin, snake venom-like protease, cathepsin 1, cathepsin D

(lysosomal aspartyl protease), stromelysin, aminopeptidase N, plasminogen, tissue plasminogen activator, plasminogen activator inhibitor type II, and urokinase-type plasminogen activator.

- Known protein kinases include DAP kinase, serine/threonine protein kinases
- 5 NIK, PK428, Krs-2, SAK, and EMK, interferon-inducible double stranded RNA dependent protein kinase, FAST kinase, AIM1, IPL1-like midbody-associated protein kinase-1, NIMA-like protein kinase 1 (NLK1), the cyclin-dependent kinases (cdk1-10), checkpoint kinase Chk1, Nek3 protein kinase, BMK1 beta kinase, Clk1, Clk2, Clk3, extracellular signal-regulated kinases 1, 3, and 6, cdc28 protein kinase 1, cdc28 protein
 - 10 kinase 2, pLK, Myt1, c-Jun N-terminal kinase 2, Cam kinase 1, the MAP kinases, insulin-stimulated protein kinase 1, beta-adrenergic receptor kinase 2, ribosomal protein S6 kinase, kinase suppressor of ras-1 (KSR1), putative serine/threonine protein kinase Prk, PkB kinase, cAMP-dependent protein kinase, cGMP-dependent protein kinase, type II cGMP-dependent protein kinase, protein kinases Dyrk2, Dyrk3, and Dyrk4, Rho-
 - 15 associated coiled-coil containing protein kinase p160ROCK, protein tyrosine kinase t-Ror1, Ste20-related kinases, cell adhesion kinase beta, protein kinase 3, stress-activated protein kinase 4, protein kinase Zpk, serine kinase hPAK65, dual specificity mitogen-activated protein kinases 1 and 2, casein kinase I gamma 2, p21-activated protein kinase Pak1, lipid-activated protein kinase PRK2, focal adhesion kinase, dual-specificity
 - 20 tyrosine-phosphorylation regulated kinase, myosin light chain kinase, serine kinases SRPK2, TESK1, and VRK2, B lymphocyte serine/threonine protein kinase, stress-activated protein kinases JNK1 and JNK2, phosphorylase kinase, protein tyrosine kinase Tec, Jak2 kinase, protein kinase Ndr, MEK kinase 3, SHB adaptor protein (a Src homology 2 protein), agammaglobulinaemia protein-tyrosine kinase (Atk), protein
 - 25 kinase ATR, guanylate kinase 1, thrombopoietin receptor and its precursors, DAG kinase epsilon, and kinases encoded by oncogenes or viral oncogenes such as v-fgr (Gardner-Rasheed), v-abl (Abelson murine leukemia viral oncogene homolog 1), v-arg (Abelson murine leukemia viral oncogene homolog, Abelson-related gene), v-fes and v-fps (feline sarcoma viral oncogene and Fujinami avian sarcoma viral oncogene
 - 30 homologs), proto-oncogene *c-cot*, oncogene *pim-1*, and oncogene *mas1*.

It is recognized that the compositions, kits, and methods of the invention will be of particular utility to patients having an enhanced risk of developing breast cancer and their medical advisors. Patients recognized as having an enhanced risk of developing breast cancer include, for example, patients having a familial history of breast cancer, 5 patients identified as having a mutant oncogene (*i.e.* at least one allele), and patients of advancing age (*i.e.* women older than about 50 or 60 years).

The level of expression of a marker in normal (*i.e.* non-cancerous) human breast tissue can be assessed in a variety of ways. In one embodiment, this normal level of expression is assessed by assessing the level of expression of the marker in a portion of 10 breast cells which appears to be non-cancerous and by comparing this normal level of expression with the level of expression in a portion of the breast cells which is suspected of being cancerous. For example, when mammography or other medical procedure, reveals the presence of a lump in a patient's breast, the normal level of expression of a marker may be assessed using the non-affected breast tissue, and this normal level of 15 expression may be compared with the level of expression of the same marker in an affected portion (*i.e.* the lump) of the affected breast. Alternately, and particularly as further information becomes available as a result of routine performance of the methods described herein, population-average values for normal expression of the markers of the invention may be used. In other embodiments, the 'normal' level of expression of a 20 marker may be determined by assessing expression of the marker in a patient sample obtained from a non-cancer-afflicted patient, from a patient sample obtained from a patient before the suspected onset of breast cancer in the patient, from archived patient samples, and the like.

The invention includes compositions, kits, and methods for assessing the presence 25 of breast cancer cells in a sample (*e.g.* an archived tissue sample or a sample obtained from a patient). These compositions, kits, and methods are substantially the same as those described above, except that, where necessary, the compositions, kits, and methods are adapted for use with samples other than patient samples. For example, when the sample to be used is a paraffinized, archived human tissue sample, it can be 30 necessary to adjust the ratio of compounds in the compositions of the invention, in the kits of the invention, or the methods used to assess levels of marker expression in the

sample. Such methods are well known in the art and within the skill of the ordinary artisan.

The invention includes a kit for assessing the presence of breast cancer cells (*e.g.* in a sample such as a patient sample). The kit comprises a plurality of reagents, each of which is capable of binding specifically with a nucleic acid or polypeptide
5 corresponding to a marker of the invention. Suitable reagents for binding with a polypeptide corresponding to a marker of the invention include antibodies, antibody derivatives, antibody fragments, and the like. Suitable reagents for binding with a nucleic acid (*e.g.* a genomic DNA, an mRNA, a spliced mRNA, a cDNA, or the like)
10 include complementary nucleic acids. For example, the nucleic acid reagents may include oligonucleotides (labeled or non-labeled) fixed to a substrate, labeled oligonucleotides not bound with a substrate, pairs of PCR primers, molecular beacon probes, and the like.

The kit of the invention may optionally comprise additional components useful
15 for performing the methods of the invention. By way of example, the kit may comprise fluids (*e.g.* SSC buffer) suitable for annealing complementary nucleic acids or for binding an antibody with a protein with which it specifically binds, one or more sample compartments, an instructional material which describes performance of a method of the invention, a sample of normal breast cells, a sample of breast cancer cells, and the like.

20 The invention also includes a method of making an isolated hybridoma which produces an antibody useful for assessing whether patient is afflicted with breast cancer. In this method, a protein corresponding to a marker of the invention is isolated (*e.g.* by purification from a cell in which it is expressed or by transcription and translation of a nucleic acid encoding the protein *in vivo* or *in vitro* using known methods). A
25 vertebrate, preferably a mammal such as a mouse, rat, rabbit, or sheep, is immunized using the isolated protein or protein fragment. The vertebrate may optionally (and preferably) be immunized at least one additional time with the isolated protein or protein fragment, so that the vertebrate exhibits a robust immune response to the protein or protein fragment. Splenocytes are isolated from the immunized vertebrate and fused
30 with an immortalized cell line to form hybridomas, using any of a variety of methods well known in the art. Hybridomas formed in this manner are then screened using standard methods to identify one or more hybridomas which produce an antibody which

specifically binds with the protein or protein fragment. The invention also includes hybridomas made by this method and antibodies made using such hybridomas.

The invention also includes a method of assessing the efficacy of a test compound for inhibiting breast cancer cells. As described above, differences in the level of
5 expression of the markers of the invention correlate with the cancerous state of breast cells. Although it is recognized that changes in the levels of expression of certain of the markers of the invention likely result from the cancerous state of breast cells, it is likewise recognized that changes in the levels of expression of other of the markers of the invention induce, maintain, and promote the cancerous state of those cells. Thus,
10 compounds which inhibit breast cancer in a patient will cause the level of expression of one or more of the markers of the invention to change to a level nearer the normal level of expression for that marker (*i.e.* the level of expression for the marker in non-cancerous breast cells).

This method thus comprises comparing expression of a marker in a first breast
15 cell sample and maintained in the presence of the test compound and expression of the marker in a second breast cell sample and maintained in the absence of the test compound. A significant alteration in the level of expression of a marker listed in Tables 1-6, may be is an indication that the test compound inhibits breast cancer (*e.g.*, decreases in expression in those markers that are over-expressed in breast cancer cells or
20 more aggressive breast cancer cells and breast cancer cells from patients with poor clinical outcome or increases expression in those markers that are under-expressed in breast cancer cells or in more aggressive breast cancer cells or breast cancer cells from patients with poor clinical outcome. The breast cell samples may, for example, be aliquots of a single sample of normal breast cells obtained from a patient, pooled
25 samples of normal breast cells obtained from a patient, cells of a normal breast cell line, aliquots of a single sample of breast cancer cells obtained from a patient, pooled samples of breast cancer cells obtained from a patient, cells of a breast cancer cell line, or the like. In one embodiment, the samples are breast cancer cells obtained from a patient and a plurality of compounds known to be effective for inhibiting various breast cancers are
30 tested in order to identify the compound which is likely to best inhibit the breast cancer in the patient.

This method may likewise be used to assess the efficacy of a therapy for inhibiting breast cancer in a patient. In this method, the level of expression of one or more markers of the invention in a pair of samples (one subjected to the therapy, the other not subjected to the therapy) is assessed. As with the method of assessing the efficacy of test compounds, if the therapy induces a significant alteration in the level of expression of a marker listed in Tables 1-6, or blocks induction of a marker listed in Tables 1-6, then the therapy may be efficacious for inhibiting breast cancer. As above, if samples from a selected patient are used in this method, then alternative therapies can be assessed *in vitro* in order to select a therapy most likely to be efficacious for inhibiting breast cancer in the patient.

As described herein, breast cancer in patients is associated with levels of expression of one or more markers listed in Tables 1-6. While, as discussed above, some of these changes in expression level result from occurrence of the breast cancer, others of these changes induce, maintain, and promote the cancerous state of breast cancer cells. Thus, breast cancer characterized by an alteration in the level of expression of one or more markers listed in Tables 1-6 can be inhibited by hampering or increasing expression of those markers.

Expression of a marker listed in Tables 1-6 can be inhibited in a number of ways generally known in the art. For example, an antisense oligonucleotide can be provided to the breast cancer cells in order to inhibit transcription, translation, or both, of the marker(s). Alternately, a polynucleotide encoding an antibody, an antibody derivative, or an antibody fragment, and operably linked with an appropriate promoter/regulator region, can be provided to the cell in order to generate intracellular antibodies which will inhibit the function or activity of the protein corresponding to the marker(s). Using the methods described herein, a variety of molecules, particularly including molecules sufficiently small that they are able to cross the cell membrane, can be screened in order to identify molecules which inhibit expression of the marker(s). The compound so identified can be provided to the patient in order to inhibit expression of the marker(s) in the breast cancer cells of the patient.

Expression of a marker listed within Tables 1-6 can be enhanced in number of ways generally known in the art. For example, a polynucleotide encoding the marker and operably linked with an appropriate promoter/regulator region can be provided to

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breast cancer cells of the patient in order to induce enhanced expression of the protein (and mRNA) corresponding to the marker therein. Alternatively, if the protein is capable of crossing the cell membrane, inserting itself in the cell membrane, or is normally a secreted protein, then expression of the protein can be enhanced by providing
5 the protein (*e.g.* directly or by way of the bloodstream or another breast-associated fluid) to breast cancer cells in the patient.

As described above, the cancerous state of human breast cells is correlated with changes in the levels of expression of the markers of the invention. The invention thus includes a method for assessing the human breast cell carcinogenic potential of a test
10 compound. This method comprises maintaining separate aliquots of human breast cells in the presence and absence of the test compound. Expression of a marker of the invention in each of the aliquots is compared. A significant alteration in the level of expression of a marker listed in Tables 1-6 in the aliquot maintained in the presence of the test compound (relative to the aliquot maintained in the absence of the test
15 compound) may be an indication that the test compound possesses human breast cell carcinogenic potential. The relative carcinogenic potentials of various test compounds can be assessed by comparing the degree of enhancement or inhibition of the level of expression of the relevant markers, by comparing the number of markers for which the level of expression is enhanced or inhibited, or by comparing both.

20 Various aspects of the invention are described in further detail in the following subsections.

I. Isolated Nucleic Acid Molecules

One aspect of the invention pertains to novel isolated nucleic acid molecules that
25 correspond to a marker of the invention, including nucleic acids which encode a polypeptide corresponding to a marker of the invention or a portion of such a polypeptide. Isolated nucleic acids of the invention also include nucleic acid molecules sufficient for use as hybridization probes to identify nucleic acid molecules that correspond to a marker of the invention, including nucleic acids which encode a
30 polypeptide corresponding to a marker of the invention, and fragments of such nucleic acid molecules, *e.g.*, those suitable for use as PCR primers for the amplification or mutation of nucleic acid molecules. As used herein, the term "nucleic acid molecule" is

intended to include DNA molecules (e.g., cDNA or genomic DNA) and RNA molecules (e.g., mRNA) and analogs of the DNA or RNA generated using nucleotide analogs. The nucleic acid molecule can be single-stranded or double-stranded, but preferably is double-stranded DNA.

- 5 An "isolated" nucleic acid molecule is one which is separated from other nucleic acid molecules which are present in the natural source of the nucleic acid molecule. Preferably, an "isolated" nucleic acid molecule is free of sequences (preferably protein-encoding sequences) which naturally flank the nucleic acid (*i.e.*, sequences located at the 5' and 3' ends of the nucleic acid) in the genomic DNA of the organism from which the
- 10 nucleic acid is derived. For example, in various embodiments, the isolated nucleic acid molecule can contain less than about 5 kB, 4 kB, 3 kB, 2 kB, 1 kB, 0.5 kB or 0.1 kB of nucleotide sequences which naturally flank the nucleic acid molecule in genomic DNA of the cell from which the nucleic acid is derived. Moreover, an "isolated" nucleic acid molecule, such as a cDNA molecule, can be substantially free of other cellular material,
- 15 or culture medium when produced by recombinant techniques, or substantially free of chemical precursors or other chemicals when chemically synthesized.

- A nucleic acid molecule of the present invention, *e.g.*, a nucleic acid encoding a protein corresponding to a marker listed in Tables 1-6, can be isolated using standard molecular biology techniques and the sequence information in the database records
- 20 described herein. Using all or a portion of such nucleic acid sequences, nucleic acid molecules of the invention can be isolated using standard hybridization and cloning techniques (*e.g.*, as described in Sambrook *et al.*, ed., *Molecular Cloning: A Laboratory Manual*, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1989).

- 25 A process for identifying a larger fragment or the full-length coding sequence of a marker of the present invention is thus also provided. Any conventional recombinant DNA techniques applicable for isolating polynucleotides may also be employed. One such method involves the 5'-RACE-PCR technique, in which the poly-A mRNA that contains the coding sequence of particular interest is first reverse transcribed with a 3'
- 30 primer comprising a sequence disclosed herein. The newly synthesized cDNA strand is then tagged with an anchor primer with a known sequence, which preferably contains a convenient cloning restriction site attached at the 5'end. The tagged cDNA is then

amplified with the 3'-primer (or a nested primer sharing sequence homology to the internal sequences of the coding region) and the 5'-anchor primer. The amplification may be conducted under conditions of various levels of stringency to optimize the amplification specificity. 5'-RACE-PCR can be readily performed using commercial kits
5 (available from, e.g., BRL Life Technologies Inc., Clontech) according to the manufacturer's instructions.

Isolating the complete coding sequence of a gene can also be carried out in a hybridization assay using a suitable probe. The probe preferably comprises at least 10 nucleotides, and more preferably exhibits sequence homology to the polynucleotides of
10 the markers of the present invention. Other high throughput screens for cDNAs, such as those involving gene chip technology, can also be employed in obtaining the complete cDNA sequence.

In addition, databases exist that reduce the complexity of ESTs by assembling contiguous EST sequences into tentative genes. For example, TIGR has assembled
15 human ESTs into a databse called THC for tentative human consensus sequences. The THC database allows for a more definitive assignment compared to ESTs alone. Software programs exist (TIGR assembler and TIGEM EST assembly machine and contig assembly program (see Huang, X., 1996, *Genomes* 33:21-23)) that allow for assembling ESTs into contiguous sequences from any organism.

20 Alternatively, mRNA from a sample preparation is used to construct cDNA library in the ZAP Express vector following the procedure described in Velculescu *et al.*, 1997, *Science* 270:484. The ZAP Express cDNA synthesis kit (Stratagene) is used accordingly to the manufacturer's protocol. Plates containing 250 to 2000 plaques are hybridized as described in Rupert *et al.*, 1988, *Mol. Cell. Bio.* 8:3104 to oligonucleotide
25 probes with the same conditions previously described for standard probes except that the hybridization temperature is reduced to a room temperature. Washes are performed in 6X standard-saline-citrate 0.1% SDS for 30 minutes at room temperature. The probes are labeled with ³²P-ATP through use of T4 polynucleotide kinase.

A partial cDNA (3' fragment) can be isolated by 3' directed PCR reaction. This
30 procedure is a modification of the protocol described in Polyak *et al.*, 1997, *Nature* 389:300. Briefly, the procedure uses SAGE tags in PCR reaction such that the resultant PCR product contains the SAGE tag of interest as well as additional cDNA, the length

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of which is defined by the position of the tag with respect to the 3' end of the cDNA. The cDNA product derived from such a transcript driven PCR reaction can be used for many applications.

RNA from a source to express the cDNA corresponding to a given tag is first converted to double-stranded cDNA using any standard cDNA protocol. Similar conditions used to generate cDNA for SAGE library construction can be employed except that a modified oligo-dT primer is used to derive the first strand synthesis. For example, the oligonucleotide of composition 5'-B-TCC GGC GCG CCG TTT TCC CAG TCA CGA(30)- 3', contains a poly-T stretch at the 3' end for hybridization and priming from poly-A tails, an M13 priming site for use in subsequent PCR steps, a 5' Biotin label (B) for capture to streptavidin-coated magnetic beads, and an *AscI* restriction endonuclease site for releasing the cDNA from the streptavidin-coated magnetic beads. Theoretically, any sufficiently-sized DNA region capable of hybridizing to a PCR primer can be used as well as any other 8 base pair recognizing endonuclease.

cDNA constructed utilizing this or similar modified oligo-dT primer is then processed exactly as described in U.S. Patent No. 5,695,937 up until adapter ligation where only one adapter is ligated to the cDNA pool. After Adapter ligation, the cDNA is released from the streptavidin-coated magnetic beads and is then used as a template for cDNA amplification.

Various PCR protocols can be employed using PCR priming sites within the 3' modified oligo-dT primer and the SAGE tag. The SAGE tag-derived PCR primer employed can be of varying length dictated by 5' extension of the tag into the adaptor sequence. cDNA products are now available for a variety of applications.

This technique can be further modified by: (1) altering the length and/or content of the modified oligo-dT primer; (2) ligating adaptors other than that previously employed within the SAGE protocol; (3) performing PCR from template retained on the streptavidin-coated magnetic beads; and (4) priming first strand cDNA synthesis with non-oligo-dT based primers.

Gene trapper technology can also be used. The reagents and manufacturer's instructions for this technology are commercially available from Life Technologies, Inc., Gaithersburg, Maryland. Briefly, a complex population of single-stranded phagemid DNA containing directional cDNA inserts is enriched for the target sequence by

hybridization in solution to a biotinylated oligonucleotide probe complementary to the target sequence. The hybrids are captured on streptavidin-coated paramagnetic beads. A magnet retrieves the paramagnetic beads from the solution, leaving nonhybridized single-stranded DNAs behind. Subsequently, the captured single-stranded DNA target is released from the biotinylated oligonucleotide. After release, the cDNA clone is further enriched by using a nonbiotinylated target oligonucleotide to specifically prime conversion of the single-stranded DNA. Following transformation and plating, typically 20% to 100% of the colonies represent the cDNA clone of interest. To identify the desired cDNA clone, the colonies may be screened by colony hybridization using the ³²P-labeled oligonucleotide as described above for solution hybridization, or alternatively by DNA sequencing and alignment of all sequences obtained from numerous clones to determine a consensus sequence.

A nucleic acid molecule of the invention can be amplified using cDNA, mRNA, or genomic DNA as a template and appropriate oligonucleotide primers according to standard PCR amplification techniques. The nucleic acid so amplified can be cloned into an appropriate vector and characterized by DNA sequence analysis. Furthermore, oligonucleotides corresponding to all or a portion of a nucleic acid molecule of the invention can be prepared by standard synthetic techniques, *e.g.*, using an automated DNA synthesizer.

In another preferred embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which has a nucleotide sequence complementary to the nucleotide sequence of a nucleic acid corresponding to a marker of the invention or to the nucleotide sequence of a nucleic acid encoding a protein which corresponds to a marker of the invention. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Moreover, a nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence, wherein the full length nucleic acid sequence comprises a marker of the invention or which encodes a polypeptide corresponding to a marker of the invention. Such nucleic acids can be used, for example, as a probe or primer. The probe/primer typically is used as one or more substantially purified oligonucleotides.

The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 7, preferably about 15, more preferably about 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, or 400 or more consecutive nucleotides of a nucleic acid of the invention.

- 5 Probes based on the sequence of a nucleic acid molecule of the invention can be used to detect transcripts or genomic sequences corresponding to one or more markers of the invention. The probe comprises a label group attached thereto, *e.g.*, a radioisotope, a fluorescent compound, an enzyme, or an enzyme co-factor. Such probes can be used as part of a diagnostic test kit for identifying cells or tissues which mis-
10 express the protein, such as by measuring levels of a nucleic acid molecule encoding the protein in a sample of cells from a subject, *e.g.*, detecting mRNA levels or determining whether a gene encoding the protein has been mutated or deleted.

- The invention further encompasses nucleic acid molecules that differ, due to degeneracy of the genetic code, from the nucleotide sequence of nucleic acids encoding
15 a protein which corresponds to a marker of the invention, and thus encode the same protein.

- In addition to the nucleotide sequences described herein, it will be appreciated by those skilled in the art that DNA sequence polymorphisms that lead to changes in the amino acid sequence can exist within a population (*e.g.*, the human population). Such
20 genetic polymorphisms can exist among individuals within a population due to natural allelic variation. An allele is one of a group of genes which occur alternatively at a given genetic locus. In addition, it will be appreciated that DNA polymorphisms that affect RNA expression levels can also exist that may affect the overall expression level of that gene (*e.g.*, by affecting regulation or degradation).

- 25 As used herein, the phrase "allelic variant" refers to a nucleotide sequence which occurs at a given locus or to a polypeptide encoded by the nucleotide sequence.

- As used herein, the terms "gene" and "recombinant gene" refer to nucleic acid molecules comprising an open reading frame encoding a polypeptide corresponding to a marker of the invention. Such natural allelic variations can typically result in 1-5%
30 variance in the nucleotide sequence of a given gene. Alternative alleles can be identified by sequencing the gene of interest in a number of different individuals. This can be readily carried out by using hybridization probes to identify the same genetic locus in a

variety of individuals. Any and all such nucleotide variations and resulting amino acid polymorphisms or variations that are the result of natural allelic variation and that do not alter the functional activity are intended to be within the scope of the invention.

In another embodiment, an isolated nucleic acid molecule of the invention is at
5 least 7, 15, 20, 25, 30, 40, 60, 80, 100, 150, 200, 250, 300, 350, 400, 450, 550, 650, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3500, 4000, 4500, or more nucleotides in length and hybridizes under stringent conditions to a nucleic acid corresponding to a marker of the invention or to a nucleic acid encoding a protein corresponding to a marker of the invention. As used herein, the term "hybridizes
10 under stringent conditions" is intended to describe conditions for hybridization and washing under which nucleotide sequences at least 75% (80%, 85%, preferably 90%) identical to each other typically remain hybridized to each other. Such stringent conditions are known to those skilled in the art and can be found in sections 6.3.1-6.3.6 of *Current Protocols in Molecular Biology*, John Wiley & Sons, N.Y. (1989). A
15 preferred, non-limiting example of stringent hybridization conditions for annealing two single-stranded DNA each of which is at least about 100 bases in length and/or for annealing a single-stranded DNA and a single-stranded RNA each of which is at least about 100 bases in length, are hybridization in 6X sodium chloride/sodium citrate (SSC) at about 45°C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65°C.
20 Further preferred hybridization conditions are taught in Lockhart, *et al.*, *Nature Biotechnology*, Volume 14, 1996 August:1675-1680; Breslauer, *et al.*, *Proc. Natl. Acad. Sci. USA*, Volume 83, 1986 June: 3746-3750; Van Ness, *et al.*, *Nucleic Acids Research*, Volume 19, No. 19, 1991 September: 5143-5151; McGraw, *et al.*, *BioTechniques*, Volume 8, No. 6 1990: 674-678; and Milner, *et al.*, *Nature Biotechnology*, Volume 15,
25 1997 June: 537-541, all expressly incorporated by reference.

In addition to naturally-occurring allelic variants of a nucleic acid molecule of the invention that can exist in the population, the skilled artisan will further appreciate that sequence changes can be introduced by mutation thereby leading to changes in the amino acid sequence of the encoded protein, without altering the biological activity of
30 the protein encoded thereby. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type

sequence without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are not conserved or only semi-conserved among homologs of various species may be non-essential for activity and thus would be likely targets for alteration. Alternatively, amino acid residues that are conserved among the homologs of various species (*e.g.*, murine and human) may be essential for activity and thus would not be likely targets for alteration.

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding a polypeptide of the invention that contain changes in amino acid residues that are not essential for activity. Such polypeptides differ in amino acid sequence from the naturally-occurring proteins which correspond to the markers of the invention, yet retain biological activity. In one embodiment, such a protein has an amino acid sequence that is at least about 40% identical, 50%, 60%, 70%, 80%, 90%, 95%, or 98% identical to the amino acid sequence of one of the proteins which correspond to the markers of the invention.

An isolated nucleic acid molecule encoding a variant protein can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of nucleic acids of the invention, such that one or more amino acid residue substitutions, additions, or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side chains (*e.g.*, lysine, arginine, histidine), acidic side chains (*e.g.*, aspartic acid, glutamic acid), uncharged polar side chains (*e.g.*, glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), non-polar side chains (*e.g.*, alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (*e.g.*, threonine, valine, isoleucine) and aromatic side chains (*e.g.*, tyrosine, phenylalanine, tryptophan, histidine). Alternatively, mutations can be introduced randomly along all or part of the coding sequence, such as by saturation mutagenesis,

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and the resultant mutants can be screened for biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

The present invention encompasses antisense nucleic acid molecules, *i.e.*,
5 molecules which are complementary to a sense nucleic acid of the invention, *e.g.*, complementary to the coding strand of a double-stranded cDNA molecule corresponding to a marker of the invention or complementary to an mRNA sequence corresponding to a marker of the invention. Accordingly, an antisense nucleic acid of the invention can hydrogen bond to (*i.e.* anneal with) a sense nucleic acid of the
10 invention. The antisense nucleic acid can be complementary to an entire coding strand, or to only a portion thereof, *e.g.*, all or part of the protein coding region (or open reading frame). An antisense nucleic acid molecule can also be antisense to all or part of a non-coding region of the coding strand of a nucleotide sequence encoding a polypeptide of the invention. The non-coding regions ("5' and 3' untranslated regions") are the 5' and 3'
15 sequences which flank the coding region and are not translated into amino acids.

An antisense oligonucleotide can be, for example, about 5, 10, 15, 20, 25, 30, 35, 40, 45, or 50 or more nucleotides in length. An antisense nucleic acid of the invention can be constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid (*e.g.*, an antisense
20 oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine substituted nucleotides can be used. Examples of modified nucleotides which can be
25 used to generate the antisense nucleic acid include 5-fluorouracil, 5-bromouracil, 5-chlorouracil, 5-iodouracil, hypoxanthine, xanthine, 4-acetylcytosine, 5-(carboxyhydroxymethyl) uracil, 5-carboxymethylaminomethyl-2-thiouridine, 5-carboxymethylaminomethyluracil, dihydrouracil, beta-D-galactosylqueosine, inosine, N6-isopentenyladenine, 1-methylguanine, 1-methylinosine, 2,2-dimethylguanine, 2-methyladenine, 2-methylguanine, 3-methylcytosine, 5-methylcytosine, N6-adenine, 7-methylguanine, 5-methylaminomethyluracil, 5-methoxyaminomethyl-2-thiouracil, beta-D-mannosylqueosine, 5'-methoxycarboxymethyluracil, 5-methoxyuracil, 2-methylthio-

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N6-isopentenyladenine, uracil-5-oxyacetic acid (v), wybutoxosine, pseudouracil, queosine, 2-thiocytosine, 5-methyl-2-thiouracil, 2-thiouracil, 4-thiouracil, 5-methyluracil, uracil-5-oxyacetic acid methylester, uracil-5-oxyacetic acid (v), 5-methyl-2-thiouracil, 3-(3-amino-3-N-2-carboxypropyl) uracil, (acp3)w, and 2,6-diaminopurine.

5 Alternatively, the antisense nucleic acid can be produced biologically using an expression vector into which a nucleic acid has been sub-cloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid will be of an antisense orientation to a target nucleic acid of interest, described further in the following subsection).

10 The antisense nucleic acid molecules of the invention are typically administered to a subject or generated *in situ* such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding a polypeptide corresponding to a selected marker of the invention to thereby inhibit expression of the marker, *e.g.*, by inhibiting transcription and/or translation. The hybridization can be by conventional nucleotide
15 complementarity to form a stable duplex, or, for example, in the case of an antisense nucleic acid molecule which binds to DNA duplexes, through specific interactions in the major groove of the double helix. Examples of a route of administration of antisense nucleic acid molecules of the invention includes direct injection at a tissue site or infusion of the antisense nucleic acid into an breast-associated body fluid. Alternatively,
20 antisense nucleic acid molecules can be modified to target selected cells and then administered systemically. For example, for systemic administration, antisense molecules can be modified such that they specifically bind to receptors or antigens expressed on a selected cell surface, *e.g.*, by linking the antisense nucleic acid molecules to peptides or antibodies which bind to cell surface receptors or antigens. The antisense
25 nucleic acid molecules can also be delivered to cells using the vectors described herein. To achieve sufficient intracellular concentrations of the antisense molecules, vector constructs in which the antisense nucleic acid molecule is placed under the control of a strong pol II or pol III promoter are preferred.

An antisense nucleic acid molecule of the invention can be an α -anomeric nucleic
30 acid molecule. An α -anomeric nucleic acid molecule forms specific double-stranded hybrids with complementary RNA in which, contrary to the usual α -units, the strands run parallel to each other (Gaultier *et al.*, 1987, *Nucleic Acids Res.* 15:6625-6641). The

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antisense nucleic acid molecule can also comprise a 2'-o-methylribonucleotide (Inoue *et al.*, 1987, *Nucleic Acids Res.* 15:6131-6148) or a chimeric RNA-DNA analogue (Inoue *et al.*, 1987, *FEBS Lett.* 215:327-330).

The invention also encompasses ribozymes. Ribozymes are catalytic RNA
5 molecules with ribonuclease activity which are capable of cleaving a single-stranded nucleic acid, such as an mRNA, to which they have a complementary region. Thus, ribozymes (*e.g.*, hammerhead ribozymes as described in Haselhoff and Gerlach, 1988, *Nature* 334:585-591) can be used to catalytically cleave mRNA transcripts to thereby inhibit translation of the protein encoded by the mRNA. A ribozyme having specificity
10 for a nucleic acid molecule encoding a polypeptide corresponding to a marker of the invention can be designed based upon the nucleotide sequence of a cDNA corresponding to the marker. For example, a derivative of a *Tetrahymena* L-19 IVS RNA can be constructed in which the nucleotide sequence of the active site is complementary to the nucleotide sequence to be cleaved (see Cech *et al.* U.S. Patent No.
15 4,987,071; and Cech *et al.* U.S. Patent No. 5,116,742). Alternatively, an mRNA encoding a polypeptide of the invention can be used to select a catalytic RNA having a specific ribonuclease activity from a pool of RNA molecules (see, *e.g.*, Bartel and Szostak, 1993, *Science* 261:1411-1418).

The invention also encompasses nucleic acid molecules which form triple helical
20 structures. For example, expression of a polypeptide of the invention can be inhibited by targeting nucleotide sequences complementary to the regulatory region of the gene encoding the polypeptide (*e.g.*, the promoter and/or enhancer) to form triple helical structures that prevent transcription of the gene in target cells. See generally Helene (1991) *Anticancer Drug Des.* 6(6):569-84; Helene (1992) *Ann. N.Y. Acad. Sci.* 660:27-
25 36; and Maher (1992) *Bioassays* 14(12):807-15.

In various embodiments, the nucleic acid molecules of the invention can be modified at the base moiety, sugar moiety or phosphate backbone to improve, *e.g.*, the stability, hybridization, or solubility of the molecule. For example, the deoxyribose phosphate backbone of the nucleic acids can be modified to generate peptide nucleic
30 acids (see Hyrup *et al.*, 1996, *Bioorganic & Medicinal Chemistry* 4(1): 5-23). As used herein, the terms "peptide nucleic acids" or "PNAs" refer to nucleic acid mimics, *e.g.*, DNA mimics, in which the deoxyribose phosphate backbone is replaced by a

pseudopeptide backbone and only the four natural nucleobases are retained. The neutral backbone of PNAs has been shown to allow for specific hybridization to DNA and RNA under conditions of low ionic strength. The synthesis of PNA oligomers can be performed using standard solid phase peptide synthesis protocols as described in Hyrup
5 *et al.* (1996), *supra*; Perry-O'Keefe *et al.* (1996) *Proc. Natl. Acad. Sci. USA* 93:14670-675.

PNAs can be used in therapeutic and diagnostic applications. For example, PNAs can be used as antisense or antigene agents for sequence-specific modulation of gene expression by, *e.g.*, inducing transcription or translation arrest or inhibiting replication.
10 PNAs can also be used, *e.g.*, in the analysis of single base pair mutations in a gene by, *e.g.*, PNA directed PCR clamping; as artificial restriction enzymes when used in combination with other enzymes, *e.g.*, S1 nucleases (Hyrup (1996), *supra*; or as probes or primers for DNA sequence and hybridization (Hyrup, 1996, *supra*; Perry-O'Keefe *et al.*, 1996, *Proc. Natl. Acad. Sci. USA* 93:14670-675).

15 In another embodiment, PNAs can be modified, *e.g.*, to enhance their stability or cellular uptake, by attaching lipophilic or other helper groups to PNA, by the formation of PNA-DNA chimeras, or by the use of liposomes or other techniques of drug delivery known in the art. For example, PNA-DNA chimeras can be generated which can combine the advantageous properties of PNA and DNA. Such chimeras allow DNA
20 recognition enzymes, *e.g.*, RNASE H and DNA polymerases, to interact with the DNA portion while the PNA portion would provide high binding affinity and specificity. PNA-DNA chimeras can be linked using linkers of appropriate lengths selected in terms of base stacking, number of bonds between the nucleobases, and orientation (Hyrup, 1996, *supra*). The synthesis of PNA-DNA chimeras can be performed as described in
25 Hyrup (1996), *supra*, and Finn *et al.* (1996) *Nucleic Acids Res.* 24(17):3357-63. For example, a DNA chain can be synthesized on a solid support using standard phosphoramidite coupling chemistry and modified nucleoside analogs. Compounds such as 5'-(4-methoxytrityl)amino-5'-deoxy-thymidine phosphoramidite can be used as a link between the PNA and the 5' end of DNA (Mag *et al.*, 1989, *Nucleic Acids Res.*
30 17:5973-88). PNA monomers are then coupled in a step-wise manner to produce a chimeric molecule with a 5' PNA segment and a 3' DNA segment (Finn *et al.*, 1996, *Nucleic Acids Res.* 24(17):3357-63). Alternatively, chimeric molecules can be

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synthesized with a 5' DNA segment and a 3' PNA segment (Peterser *et al.*, 1975, *Bioorganic Med. Chem. Lett.* 5:1119-11124).

In other embodiments, the oligonucleotide can include other appended groups such as peptides (*e.g.*, for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, *e.g.*, Letsinger *et al.*, 1989, *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, 1987, *Proc. Natl. Acad. Sci. USA* 84:648-652; PCT Publication No. WO 88/09810) or the blood-brain barrier (see, *e.g.*, PCT Publication No. WO 89/10134). In addition, oligonucleotides can be modified with hybridization-triggered cleavage agents (see, *e.g.*, Krol *et al.*, 1988, *Bio/Techniques* 6:958-976) or intercalating agents (see, *e.g.*, Zon, 1988, *Pharm. Res.* 5:539-549). To this end, the oligonucleotide can be conjugated to another molecule, *e.g.*, a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent, etc.

The invention also includes molecular beacon nucleic acids having at least one region which is complementary to a nucleic acid of the invention, such that the molecular beacon is useful for quantitating the presence of the nucleic acid of the invention in a sample. A "molecular beacon" nucleic acid is a nucleic acid comprising a pair of complementary regions and having a fluorophore and a fluorescent quencher associated therewith. The fluorophore and quencher are associated with different portions of the nucleic acid in such an orientation that when the complementary regions are annealed with one another, fluorescence of the fluorophore is quenched by the quencher. When the complementary regions of the nucleic acid are not annealed with one another, fluorescence of the fluorophore is quenched to a lesser degree. Molecular beacon nucleic acids are described, for example, in U.S. Patent 5,876,930.

II. Isolated Proteins and Antibodies

One aspect of the invention pertains to isolated proteins which correspond to individual markers of the invention, and biologically active portions thereof, as well as polypeptide fragments suitable for use as immunogens to raise antibodies directed against a polypeptide corresponding to a marker of the invention. In one embodiment, the native polypeptide corresponding to a marker can be isolated from cells or tissue sources by an appropriate purification scheme using standard protein purification

techniques. In another embodiment, polypeptides corresponding to a marker of the invention are produced by recombinant DNA techniques. Alternative to recombinant expression, a polypeptide corresponding to a marker of the invention can be synthesized chemically using standard peptide synthesis techniques.

- 5 An "isolated" or "purified" protein or biologically active portion thereof is substantially free of cellular material or other contaminating proteins from the cell or tissue source from which the protein is derived, or substantially free of chemical precursors or other chemicals when chemically synthesized. The language "substantially free of cellular material" includes preparations of protein in which the
- 10 protein is separated from cellular components of the cells from which it is isolated or recombinantly produced. Thus, protein that is substantially free of cellular material includes preparations of protein having less than about 30%, 20%, 10%, or 5% (by dry weight) of heterologous protein (also referred to herein as a "contaminating protein"). When the protein or biologically active portion thereof is recombinantly produced, it is
- 15 also preferably substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, 10%, or 5% of the volume of the protein preparation. When the protein is produced by chemical synthesis, it is preferably substantially free of chemical precursors or other chemicals, *i.e.*, it is separated from chemical precursors or other chemicals which are involved in the synthesis of the protein. Accordingly such
- 20 preparations of the protein have less than about 30%, 20%, 10%, 5% (by dry weight) of chemical precursors or compounds other than the polypeptide of interest.

- Biologically active portions of a polypeptide corresponding to a marker of the invention include polypeptides comprising amino acid sequences sufficiently identical to or derived from the amino acid sequence of the protein corresponding to the marker,
- 25 which include fewer amino acids than the full length protein, and exhibit at least one activity of the corresponding full-length protein. Typically, biologically active portions comprise a domain or motif with at least one activity of the corresponding protein. A biologically active portion of a protein of the invention can be a polypeptide which is, for example, 10, 25, 50, 100 or more amino acids in length. Moreover, other
- 30 biologically active portions, in which other regions of the protein are deleted, can be prepared by recombinant techniques and evaluated for one or more of the functional activities of the native form of a polypeptide of the invention.

Preferred polypeptides have amino acid sequences encoded by the nucleic acid sequences described herein. Other useful proteins are substantially identical (*e.g.*, at least about 40%, preferably 50%, 60%, 70%, 80%, 90%, 95%, or 99%) to one of these sequences and retain the functional activity of the protein of the corresponding
5 naturally-occurring protein yet differ in amino acid sequence due to natural allelic variation or mutagenesis.

To determine the percent identity of two amino acid sequences or of two nucleic acids, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first amino acid or nucleic acid sequence for optimal
10 alignment with a second amino or nucleic acid sequence). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in the first sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the second sequence, then the molecules are identical at that position. The percent identity between the two sequences
15 is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions (*e.g.*, overlapping positions) $\times 100$). In one embodiment the two sequences are the same length.

The determination of percent identity between two sequences can be accomplished using a mathematical algorithm. A preferred, non-limiting example of a
20 mathematical algorithm utilized for the comparison of two sequences is the algorithm of Karlin and Altschul (1990) *Proc. Natl. Acad. Sci. USA* 87:2264-2268, modified as in Karlin and Altschul (1993) *Proc. Natl. Acad. Sci. USA* 90:5873-5877. Such an algorithm is incorporated into the NBLAST and XBLAST programs of Altschul, *et al.* (1990) *J. Mol. Biol.* 215:403-410. BLAST nucleotide searches can be performed with
25 the NBLAST program, score = 100, wordlength = 12 to obtain nucleotide sequences homologous to a nucleic acid molecules of the invention. BLAST protein searches can be performed with the XBLAST program, score = 50, wordlength = 3 to obtain amino acid sequences homologous to a protein molecules of the invention. To obtain gapped alignments for comparison purposes, Gapped BLAST can be utilized as described in
30 Altschul *et al.* (1997) *Nucleic Acids Res.* 25:3389-3402. Alternatively, PSI-Blast can be used to perform an iterated search which detects distant relationships between molecules. When utilizing BLAST, Gapped BLAST, and PSI-Blast programs, the

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default parameters of the respective programs (e.g., XBLAST and NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, (1988) *CABIOS* 4:11-17. Such an algorithm is incorporated into the
5 ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Yet another useful algorithm for identifying regions of local sequence similarity and alignment is the FASTA algorithm as described in Pearson and Lipman (1988)
10 *Proc. Natl. Acad. Sci. USA* 85:2444-2448. When using the FASTA algorithm for comparing nucleotide or amino acid sequences, a PAM120 weight residue table can, for example, be used with a *k*-tuple value of 2.

The percent identity between two sequences can be determined using techniques similar to those described above, with or without allowing gaps. In calculating percent
15 identity, only exact matches are counted.

The invention also provides chimeric or fusion proteins corresponding to a marker of the invention. As used herein, a "chimeric protein" or "fusion protein" comprises all or part (preferably a biologically active part) of a polypeptide corresponding to a marker of the invention operably linked to a heterologous
20 polypeptide (*i.e.*, a polypeptide other than the polypeptide corresponding to the marker). Within the fusion protein, the term "operably linked" is intended to indicate that the polypeptide of the invention and the heterologous polypeptide are fused in-frame to each other. The heterologous polypeptide can be fused to the amino-terminus or the carboxyl-terminus of the polypeptide of the invention.

25 One useful fusion protein is a GST fusion protein in which a polypeptide corresponding to a marker of the invention is fused to the carboxyl terminus of GST sequences. Such fusion proteins can facilitate the purification of a recombinant polypeptide of the invention.

In another embodiment, the fusion protein contains a heterologous signal
30 sequence at its amino terminus. For example, the native signal sequence of a polypeptide corresponding to a marker of the invention can be removed and replaced with a signal sequence from another protein. For example, the gp67 secretory sequence

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of the baculovirus envelope protein can be used as a heterologous signal sequence (Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, NY, 1992). Other examples of eukaryotic heterologous signal sequences include the secretory sequences of melittin and human placental alkaline phosphatase (Stratagene; 5 La Jolla, California). In yet another example, useful prokaryotic heterologous signal sequences include the phoA secretory signal (Sambrook *et al.*, *supra*) and the protein A secretory signal (Pharmacia Biotech; Piscataway, New Jersey).

In yet another embodiment, the fusion protein is an immunoglobulin fusion protein in which all or part of a polypeptide corresponding to a marker of the invention 10 is fused to sequences derived from a member of the immunoglobulin protein family. The immunoglobulin fusion proteins of the invention can be incorporated into pharmaceutical compositions and administered to a subject to inhibit an interaction between a ligand (soluble or membrane-bound) and a protein on the surface of a cell (receptor), to thereby suppress signal transduction *in vivo*. The immunoglobulin fusion 15 protein can be used to affect the bioavailability of a cognate ligand of a polypeptide of the invention. Inhibition of ligand/receptor interaction can be useful therapeutically, both for treating proliferative and differentiative disorders and for modulating (*e.g.* promoting or inhibiting) cell survival. Moreover, the immunoglobulin fusion proteins of the invention can be used as immunogens to produce antibodies directed against a 20 polypeptide of the invention in a subject, to purify ligands and in screening assays to identify molecules which inhibit the interaction of receptors with ligands.

Chimeric and fusion proteins of the invention can be produced by standard recombinant DNA techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. 25 Alternatively, PCR amplification of gene fragments can be carried out using anchor primers which give rise to complementary overhangs between two consecutive gene fragments which can subsequently be annealed and re-amplified to generate a chimeric gene sequence (see, *e.g.*, Ausubel *et al.*, *supra*). Moreover, many expression vectors are commercially available that already encode a fusion moiety (*e.g.*, a GST polypeptide). 30 A nucleic acid encoding a polypeptide of the invention can be cloned into such an expression vector such that the fusion moiety is linked in-frame to the polypeptide of the invention.

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A signal sequence can be used to facilitate secretion and isolation of the secreted protein or other proteins of interest. Signal sequences are typically characterized by a core of hydrophobic amino acids which are generally cleaved from the mature protein during secretion in one or more cleavage events. Such signal peptides contain

5 processing sites that allow cleavage of the signal sequence from the mature proteins as they pass through the secretory pathway. Thus, the invention pertains to the described polypeptides having a signal sequence, as well as to polypeptides from which the signal sequence has been proteolytically cleaved (*i.e.*, the cleavage products). In one embodiment, a nucleic acid sequence encoding a signal sequence can be operably linked

10 in an expression vector to a protein of interest, such as a protein which is ordinarily not secreted or is otherwise difficult to isolate. The signal sequence directs secretion of the protein, such as from a eukaryotic host into which the expression vector is transformed, and the signal sequence is subsequently or concurrently cleaved. The protein can then be readily purified from the extracellular medium by art recognized methods.

15 Alternatively, the signal sequence can be linked to the protein of interest using a sequence which facilitates purification, such as with a GST domain.

The present invention also pertains to variants of the polypeptides corresponding to individual markers of the invention. Such variants have an altered amino acid sequence which can function as either agonists (mimetics) or as antagonists. Variants

20 can be generated by mutagenesis, *e.g.*, discrete point mutation or truncation. An agonist can retain substantially the same, or a subset, of the biological activities of the naturally occurring form of the protein. An antagonist of a protein can inhibit one or more of the activities of the naturally occurring form of the protein by, for example, competitively binding to a downstream or upstream member of a cellular signaling cascade which

25 includes the protein of interest. Thus, specific biological effects can be elicited by treatment with a variant of limited function. Treatment of a subject with a variant having a subset of the biological activities of the naturally occurring form of the protein can have fewer side effects in a subject relative to treatment with the naturally occurring form of the protein.

30 Variants of a protein of the invention which function as either agonists (mimetics) or as antagonists can be identified by screening combinatorial libraries of mutants, *e.g.*, truncation mutants, of the protein of the invention for agonist or antagonist activity. In

one embodiment, a variegated library of variants is generated by combinatorial mutagenesis at the nucleic acid level and is encoded by a variegated gene library. A variegated library of variants can be produced by, for example, enzymatically ligating a mixture of synthetic oligonucleotides into gene sequences such that a degenerate set of potential protein sequences is expressible as individual polypeptides, or alternatively, as a set of larger fusion proteins (*e.g.*, for phage display). There are a variety of methods which can be used to produce libraries of potential variants of the polypeptides of the invention from a degenerate oligonucleotide sequence. Methods for synthesizing degenerate oligonucleotides are known in the art (see, *e.g.*, Narang, 1983, *Tetrahedron* 39:3; Itakura *et al.*, 1984, *Annu. Rev. Biochem.* 53:323; Itakura *et al.*, 1984, *Science* 198:1056; Ike *et al.*, 1983 *Nucleic Acid Res.* 11:477).

In addition, libraries of fragments of the coding sequence of a polypeptide corresponding to a marker of the invention can be used to generate a variegated population of polypeptides for screening and subsequent selection of variants. For example, a library of coding sequence fragments can be generated by treating a double stranded PCR fragment of the coding sequence of interest with a nuclease under conditions wherein nicking occurs only about once per molecule, denaturing the double stranded DNA, renaturing the DNA to form double stranded DNA which can include sense/antisense pairs from different nicked products, removing single stranded portions from reformed duplexes by treatment with S1 nuclease, and ligating the resulting fragment library into an expression vector. By this method, an expression library can be derived which encodes amino terminal and internal fragments of various sizes of the protein of interest.

Several techniques are known in the art for screening gene products of combinatorial libraries made by point mutations or truncation, and for screening cDNA libraries for gene products having a selected property. The most widely used techniques, which are amenable to high through-put analysis, for screening large gene libraries typically include cloning the gene library into replicable expression vectors, transforming appropriate cells with the resulting library of vectors, and expressing the combinatorial genes under conditions in which detection of a desired activity facilitates isolation of the vector encoding the gene whose product was detected. Recursive ensemble mutagenesis (REM), a technique which enhances the frequency of functional

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mutants in the libraries, can be used in combination with the screening assays to identify variants of a protein of the invention (Arkin and Yourvan, 1992, *Proc. Natl. Acad. Sci. USA* 89:7811-7815; Delgrave *et al.*, 1993, *Protein Engineering* 6(3):327- 331).

An isolated polypeptide corresponding to a marker of the invention, or a fragment thereof, can be used as an immunogen to generate antibodies using standard techniques for polyclonal and monoclonal antibody preparation. The full-length polypeptide or protein can be used or, alternatively, the invention provides antigenic peptide fragments for use as immunogens. The antigenic peptide of a protein of the invention comprises at least 8 (preferably 10, 15, 20, or 30 or more) amino acid residues of the amino acid sequence of one of the polypeptides of the invention, and encompasses an epitope of the protein such that an antibody raised against the peptide forms a specific immune complex with a marker of the invention to which the protein corresponds. Preferred epitopes encompassed by the antigenic peptide are regions that are located on the surface of the protein, *e.g.*, hydrophilic regions. Hydrophobicity sequence analysis, hydrophilicity sequence analysis, or similar analyses can be used to identify hydrophilic regions.

An immunogen typically is used to prepare antibodies by immunizing a suitable (*i.e.* immunocompetent) subject such as a rabbit, goat, mouse, or other mammal or vertebrate. An appropriate immunogenic preparation can contain, for example, recombinantly-expressed or chemically-synthesized polypeptide. The preparation can further include an adjuvant, such as Freund's complete or incomplete adjuvant, or a similar immunostimulatory agent.

Accordingly, another aspect of the invention pertains to antibodies directed against a polypeptide of the invention. The terms "antibody" and "antibody substance" as used interchangeably herein refer to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site which specifically binds an antigen, such as a polypeptide of the invention, *e.g.*, an epitope of a polypeptide of the invention. A molecule which specifically binds to a given polypeptide of the invention is a molecule which binds the polypeptide, but does not substantially bind other molecules in a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')₂ fragments which can be generated

by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies. The term "monoclonal antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a polypeptide of the invention as an immunogen. Preferred polyclonal antibody compositions are ones that have been selected for antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred polyclonal antibody preparations are ones that contain only antibodies directed against a polypeptide or polypeptides of the invention. Particularly preferred immunogen compositions are those that contain no other human proteins such as, for example, immunogen compositions made using a non-human host cell for recombinant expression of a polypeptide of the invention. In such a manner, the only human epitope or epitopes recognized by the resulting antibody compositions raised against this immunogen will be present as part of a polypeptide or polypeptides of the invention.

The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules can be harvested or isolated from the subject (*e.g.*, from the blood or serum of the subject) and further purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. Alternatively, antibodies specific for a protein or polypeptide of the invention can be selected or (*e.g.*, partially purified) or purified by, *e.g.*, affinity chromatography. For example, a recombinantly expressed and purified (or partially purified) protein of the invention is produced as described herein, and covalently or non-covalently coupled to a solid support such as, for example, a chromatography column. The column can then be used to affinity purify antibodies specific for the proteins of the invention from a sample containing antibodies directed against a large number of different epitopes, thereby generating a substantially purified antibody composition, *i.e.*, one that is substantially free of contaminating antibodies. By a substantially purified antibody composition is meant, in this context, that the antibody sample contains at most only 30% (by dry weight) of contaminating antibodies directed against epitopes other than

those of the desired protein or polypeptide of the invention, and preferably at most 20%, yet more preferably at most 10%, and most preferably at most 5% (by dry weight) of the sample is contaminating antibodies. A purified antibody composition means that at least 99% of the antibodies in the composition are directed against the desired protein or

5 polypeptide of the invention.

At an appropriate time after immunization, *e.g.*, when the specific antibody titers are highest, antibody-producing cells can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler and Milstein (1975) *Nature* 256:495-497, the human B

10 cell hybridoma technique (see Kozbor *et al.*, 1983, *Immunol. Today* 4:72), the EBV-hybridoma technique (see Cole *et al.*, pp. 77-96 In *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., 1985) or trioma techniques. The technology for producing hybridomas is well known (see generally *Current Protocols in Immunology*, Coligan *et al.* ed., John Wiley & Sons, New York, 1994). Hybridoma cells producing a

15 monoclonal antibody of the invention are detected by screening the hybridoma culture supernatants for antibodies that bind the polypeptide of interest, *e.g.*, using a standard ELISA assay.

Alternative to preparing monoclonal antibody-secreting hybridomas, a monoclonal antibody directed against a polypeptide of the invention can be identified

20 and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an antibody phage display library) with the polypeptide of interest. Kits for generating and screening phage display libraries are commercially available (*e.g.*, the Pharmacia *Recombinant Phage Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP Phage Display Kit*, Catalog No. 240612). Additionally, examples of methods

25 and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791; PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT

30 Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology* 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas* 3:81-85; Huse *et al.* (1989) *Science* 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.* 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. A chimeric antibody is a molecule in which different portions are derived from different animal species, such as those having a variable region derived from a murine mAb and a human immunoglobulin constant region. (See, *e.g.*, Cabilly *et al.*, U.S. Patent No. 4,816,567; and Boss *et al.*, U.S. Patent No. 4,816,397, which are incorporated herein by reference in their entirety.) Humanized antibodies are antibody molecules from non-human species having one or more complementarily determining regions (CDRs) from the non-human species and a framework region from a human immunoglobulin molecule. (See, *e.g.*, Queen, U.S. Patent No. 5,585,089, which is incorporated herein by reference in its entirety.) Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art, for example using methods described in PCT Publication No. WO 87/02671; European Patent Application 184,187; European Patent Application 171,496; European Patent Application 173,494; PCT Publication No. WO 86/01533; U.S. Patent No. 4,816,567; European Patent Application 125,023; Better *et al.* (1988) *Science* 240:1041-1043; Liu *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:3439-3443; Liu *et al.* (1987) *J. Immunol.* 139:3521-3526; Sun *et al.* (1987) *Proc. Natl. Acad. Sci. USA* 84:214-218; Nishimura *et al.* (1987) *Cancer Res.* 47:999-1005; Wood *et al.* (1985) *Nature* 314:446-449; and Shaw *et al.* (1988) *J. Natl. Cancer Inst.* 80:1553-1559; Morrison (1985) *Science* 229:1202-1207; Oi *et al.* (1986) *Bio/Techniques* 4:214; U.S. Patent 5,225,539; Jones *et al.* (1986) *Nature* 321:552-525; Verhoeven *et al.* (1988) *Science* 239:1534; and Beidler *et al.* (1988) *J. Immunol.* 141:4053-4060.

Antibodies of the invention may be used as therapeutic agents in treating cancers. In a preferred embodiment, completely human antibodies of the invention are used for therapeutic treatment of human cancer patients, particularly those having breast cancer. Such antibodies can be produced, for example, using transgenic mice which are incapable of expressing endogenous immunoglobulin heavy and light chains genes, but which can express human heavy and light chain genes. The transgenic mice are immunized in the normal fashion with a selected antigen, *e.g.*, all or a portion of a polypeptide corresponding to a marker of the invention. Monoclonal antibodies directed

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against the antigen can be obtained using conventional hybridoma technology. The human immunoglobulin transgenes harbored by the transgenic mice rearrange during B cell differentiation, and subsequently undergo class switching and somatic mutation. Thus, using such a technique, it is possible to produce therapeutically useful IgG, IgA and IgE antibodies. For an overview of this technology for producing human antibodies, see Lonberg and Huszar (1995) *Int. Rev. Immunol.* 13:65-93). For a detailed discussion of this technology for producing human antibodies and human monoclonal antibodies and protocols for producing such antibodies, see, *e.g.*, U.S. Patent 5,625,126; U.S. Patent 5,633,425; U.S. Patent 5,569,825; U.S. Patent 5,661,016; and U.S. Patent 5,545,806. In addition, companies such as Abgenix, Inc. (Freemont, CA), can be engaged to provide human antibodies directed against a selected antigen using technology similar to that described above.

Completely human antibodies which recognize a selected epitope can be generated using a technique referred to as "guided selection." In this approach a selected non-human monoclonal antibody, *e.g.*, a murine antibody, is used to guide the selection of a completely human antibody recognizing the same epitope (Jespers *et al.*, 1994, *Bio/technology* 12:899-903).

An antibody directed against a polypeptide corresponding to a marker of the invention (*e.g.*, a monoclonal antibody) can be used to isolate the polypeptide by standard techniques, such as affinity chromatography or immunoprecipitation. Moreover, such an antibody can be used to detect the marker (*e.g.*, in a cellular lysate or cell supernatant) in order to evaluate the level and pattern of expression of the marker. The antibodies can also be used diagnostically to monitor protein levels in tissues or body fluids (*e.g.* in an ovary-associated body fluid) as part of a clinical testing procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen. Detection can be facilitated by coupling the antibody to a detectable substance. Examples of detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline phosphatase, β -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate,

rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include ^{125}I , ^{131}I , ^{35}S or ^3H .

5 Further, an antibody (or fragment thereof) can be conjugated to a therapeutic moiety such as a cytotoxin, a therapeutic agent or a radioactive metal ion. A cytotoxin or cytotoxic agent includes any agent that is detrimental to cells. Examples include taxol, cytochalasin B, gramicidin D, ethidium bromide, emetine, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicin, doxorubicin, daunorubicin, 10 dihydroxy anthracin dione, mitoxantrone, mithramycin, actinomycin D, 1-dehydrotestosterone, glucocorticoids, procaine, tetracaine, lidocaine, propranolol, and puromycin and analogs or homologs thereof. Therapeutic agents include, but are not limited to, antimetabolites (*e.g.*, methotrexate, 6-mercaptopurine, 6-thioguanine, cytarabine, 5-fluorouracil decarbazine), alkylating agents (*e.g.*, mechlorethamine, 15 thioepa chlorambucil, melphalan, carmustine (BSNU) and lomustine (CCNU), cyclophosphamide, busulfan, dibromomannitol, streptozotocin, mitomycin C, and cis-dichlorodiamine platinum (II) (DDP) cisplatin), anthracyclines (*e.g.*, daunorubicin (formerly daunomycin) and doxorubicin), antibiotics (*e.g.*, dactinomycin (formerly actinomycin), bleomycin, mithramycin, and anthramycin (AMC)), and anti-mitotic 20 agents (*e.g.*, vincristine and vinblastine).

The conjugates of the invention can be used for modifying a given biological response, the drug moiety is not to be construed as limited to classical chemical therapeutic agents. For example, the drug moiety may be a protein or polypeptide possessing a desired biological activity. Such proteins may include, for example, a toxin 25 such as abrin, ricin A, pseudomonas exotoxin, or diphtheria toxin; a protein such as tumor necrosis factor, .alpha.-interferon, .beta.-interferon, nerve growth factor, platelet derived growth factor, tissue plasminogen activator; or, biological response modifiers such as, for example, lymphokines, interleukin-1 ("IL-1"), interleukin-2 ("IL-2"), interleukin-6 ("IL-6"), granulocyte macrophage colony stimulating factor ("GM-CSF"), 30 granulocyte colony stimulating factor ("G-CSF"), or other growth factors.

Techniques for conjugating such therapeutic moiety to antibodies are well known, see, e.g., Arnon et al., "Monoclonal Antibodies For Immunotargeting Of Drugs In Cancer Therapy", in *Monoclonal Antibodies And Cancer Therapy*, Reisfeld et al. (eds.), pp. 243-56 (Alan R. Liss, Inc. 1985); Hellstrom et al., "Antibodies For Drug Delivery", in *Controlled Drug Delivery* (2nd Ed.), Robinson et al. (eds.), pp. 623-53 (Marcel Dekker, Inc. 1987); Thorpe, "Antibody Carriers Of Cytotoxic Agents In Cancer Therapy: A Review", in *Monoclonal Antibodies '84: Biological And Clinical Applications*, Pinchera et al. (eds.), pp. 475-506 (1985); "Analysis, Results, And Future Prospective Of The Therapeutic Use Of Radiolabeled Antibody In Cancer Therapy", in *Monoclonal Antibodies For Cancer Detection And Therapy*, Baldwin et al. (eds.), pp. 303-16 (Academic Press 1985), and Thorpe et al., "The Preparation And Cytotoxic Properties Of Antibody-Toxin Conjugates", *Immunol. Rev.*, 62:119-58 (1982).

Alternatively, an antibody can be conjugated to a second antibody to form an antibody heteroconjugate as described by Segal in U.S. Patent No. 4,676,980.

Accordingly, in one aspect, the invention provides substantially purified antibodies or fragments thereof, and non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. In various embodiments, the substantially purified antibodies of the invention, or fragments thereof, can be human, non-human, chimeric and/or humanized antibodies.

In another aspect, the invention provides non-human antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of: the amino acid sequence of

the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. Such non-human antibodies can be goat, mouse, sheep, horse, chicken, rabbit, or rat antibodies. Alternatively, the non-human antibodies of the invention can be chimeric and/or humanized antibodies. In addition, the non-human antibodies of the invention can be polyclonal antibodies or monoclonal antibodies.

In still a further aspect, the invention provides monoclonal antibodies or fragments thereof, which antibodies or fragments specifically bind to a polypeptide comprising an amino acid sequence selected from the group consisting of the amino acid sequences of the present invention, an amino acid sequence encoded by the cDNA of the present invention, a fragment of at least 15 amino acid residues of an amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to an amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C. The monoclonal antibodies can be human, humanized, chimeric and/or non-human antibodies.

The substantially purified antibodies or fragments thereof may specifically bind to a signal peptide, a secreted sequence, an extracellular domain, a transmembrane or a cytoplasmic domain or cytoplasmic membrane of a polypeptide of the invention. In a particularly preferred embodiment, the substantially purified antibodies or fragments

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thereof, the non-human antibodies or fragments thereof, and/or the monoclonal antibodies or fragments thereof, of the invention specifically bind to a secreted sequence or an extracellular domain of the amino acid sequences of the present invention.

Any of the antibodies of the invention can be conjugated to a therapeutic moiety or to a detectable substance. Non-limiting examples of detectable substances that can be conjugated to the antibodies of the invention are an enzyme, a prosthetic group, a fluorescent material, a luminescent material, a bioluminescent material, and a radioactive material.

The invention also provides a kit containing an antibody of the invention conjugated to a detectable substance, and instructions for use. Still another aspect of the invention is a pharmaceutical composition comprising an antibody of the invention and a pharmaceutically acceptable carrier. In preferred embodiments, the pharmaceutical composition contains an antibody of the invention, a therapeutic moiety, and a pharmaceutically acceptable carrier.

Still another aspect of the invention is a method of making an antibody that specifically recognizes a polypeptide of the present invention, the method comprising immunizing a mammal with a polypeptide. The polypeptide used as an immunogen comprises an amino acid sequence selected from the group consisting of the amino acid sequence of the present invention, an amino acid sequence encoded by the cDNA of the nucleic acid molecules of the present invention, a fragment of at least 15 amino acid residues of the amino acid sequence of the present invention, an amino acid sequence which is at least 95% identical to the amino acid sequence of the present invention (wherein the percent identity is determined using the ALIGN program of the GCG software package with a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4) and an amino acid sequence which is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule consisting of the nucleic acid molecules of the present invention, or a complement thereof, under conditions of hybridization of 6X SSC at 45°C and washing in 0.2 X SSC, 0.1% SDS at 65°C.

After immunization, a sample is collected from the mammal that contains an antibody that specifically recognizes the polypeptide. Preferably, the polypeptide is recombinantly produced using a non-human host cell. Optionally, the antibodies can be further purified from the sample using techniques well known to those of skill in the art.

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The method can further comprise producing a monoclonal antibody-producing cell from the cells of the mammal. Optionally, antibodies are collected from the antibody-producing cell.

5 III. Recombinant Expression Vectors and Host Cells

Another aspect of the invention pertains to vectors, preferably expression vectors, containing a nucleic acid encoding a polypeptide corresponding to a marker of the invention (or a portion of such a polypeptide). As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has
10 been linked. One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (*e.g.*, bacterial vectors having a bacterial origin of replication and
15 episomal mammalian vectors). Other vectors (*e.g.*, non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, namely expression vectors, are capable of directing the expression of genes to which they are operably linked. In general, expression vectors of utility in recombinant DNA
20 techniques are often in the form of plasmids (vectors). However, the invention is intended to include such other forms of expression vectors, such as viral vectors (*e.g.*, replication defective retroviruses, adenoviruses and adeno-associated viruses), which serve equivalent functions.

The recombinant expression vectors of the invention comprise a nucleic acid of
25 the invention in a form suitable for expression of the nucleic acid in a host cell. This means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably linked" is intended to mean that the nucleotide sequence of
30 interest is linked to the regulatory sequence(s) in a manner which allows for expression of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory

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sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Methods in Enzymology: Gene Expression Technology* vol.185, Academic Press, San Diego, CA (1991). Regulatory sequences include those which
5 direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the host cell to be transformed, the level of expression of protein desired, and the like. The
10 expression vectors of the invention can be introduced into host cells to thereby produce proteins or peptides, including fusion proteins or peptides, encoded by nucleic acids as described herein.

The recombinant expression vectors of the invention can be designed for expression of a polypeptide corresponding to a marker of the invention in prokaryotic
15 (*e.g.*, *E. coli*) or eukaryotic cells (*e.g.*, insect cells {using baculovirus expression vectors}, yeast cells or mammalian cells). Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7 polymerase.

20 Expression of proteins in prokaryotes is most often carried out in *E. coli* with vectors containing constitutive or inducible promoters directing the expression of either fusion or non-fusion proteins. Fusion vectors add a number of amino acids to a protein encoded therein, usually to the amino terminus of the recombinant protein. Such fusion vectors typically serve three purposes: 1) to increase expression of recombinant protein;
25 2) to increase the solubility of the recombinant protein; and 3) to aid in the purification of the recombinant protein by acting as a ligand in affinity purification. Often, in fusion expression vectors, a proteolytic cleavage site is introduced at the junction of the fusion moiety and the recombinant protein to enable separation of the recombinant protein from the fusion moiety subsequent to purification of the fusion protein. Such enzymes,
30 and their cognate recognition sequences, include Factor Xa, thrombin and enterokinase. Typical fusion expression vectors include pGEX (Pharmacia Biotech Inc; Smith and Johnson, 1988, *Gene* 67:31-40), pMAL (New England Biolabs, Beverly, MA) and

pRIT5 (Pharmacia, Piscataway, NJ) which fuse glutathione S-transferase (GST), maltose E binding protein, or protein A, respectively, to the target recombinant protein.

Examples of suitable inducible non-fusion *E. coli* expression vectors include pTrc (Amann *et al.*, 1988, *Gene* 69:301-315) and pET 11d (Studier *et al.*, p. 60-89, In *Gene Expression Technology: Methods in Enzymology* vol.185, Academic Press, San Diego, CA, 1991). Target gene expression from the pTrc vector relies on host RNA polymerase transcription from a hybrid trp-lac fusion promoter. Target gene expression from the pET 11d vector relies on transcription from a T7 gn10-lac fusion promoter mediated by a co-expressed viral RNA polymerase (T7 gn1). This viral polymerase is supplied by host strains BL21(DE3) or HMS174(DE3) from a resident prophage harboring a T7 gn1 gene under the transcriptional control of the lacUV 5 promoter.

One strategy to maximize recombinant protein expression in *E. coli* is to express the protein in a host bacteria with an impaired capacity to proteolytically cleave the recombinant protein (Gottesman, p. 119-128, In *Gene Expression Technology: Methods in Enzymology* vol. 185, Academic Press, San Diego, CA, 1990). Another strategy is to alter the nucleic acid sequence of the nucleic acid to be inserted into an expression vector so that the individual codons for each amino acid are those preferentially utilized in *E. coli* (Wada *et al.*, 1992, *Nucleic Acids Res.* 20:2111-2118). Such alteration of nucleic acid sequences of the invention can be carried out by standard DNA synthesis techniques.

In another embodiment, the expression vector is a yeast expression vector. Examples of vectors for expression in yeast *S. cerevisiae* include pYepSec1 (Baldari *et al.*, 1987, *EMBO J.* 6:229-234), pMFa (Kurjan and Herskowitz, 1982, *Cell* 30:933-943), pJRY88 (Schultz *et al.*, 1987, *Gene* 54:113-123), pYES2 (Invitrogen Corporation, San Diego, CA), and pPicZ (Invitrogen Corp, San Diego, CA).

Alternatively, the expression vector is a baculovirus expression vector. Baculovirus vectors available for expression of proteins in cultured insect cells (*e.g.*, Sf 9 cells) include the pAc series (Smith *et al.*, 1983, *Mol. Cell Biol.* 3:2156-2165) and the pVL series (Lucklow and Summers, 1989, *Virology* 170:31-39).

In yet another embodiment, a nucleic acid of the invention is expressed in mammalian cells using a mammalian expression vector. Examples of mammalian expression vectors include pCDM8 (Seed, 1987, *Nature* 329:840) and pMT2PC

(Kaufman *et al.*, 1987, *EMBO J.* 6:187-195). When used in mammalian cells, the expression vector's control functions are often provided by viral regulatory elements. For example, commonly used promoters are derived from polyoma, Adenovirus 2, cytomegalovirus and Simian Virus 40. For other suitable expression systems for both
5 prokaryotic and eukaryotic cells see chapters 16 and 17 of Sambrook *et al.*, *supra*.

In another embodiment, the recombinant mammalian expression vector is capable of directing expression of the nucleic acid preferentially in a particular cell type (*e.g.*, tissue-specific regulatory elements are used to express the nucleic acid). Tissue-specific regulatory elements are known in the art. Non-limiting examples of suitable tissue-
10 specific promoters include the albumin promoter (liver-specific; Pinkert *et al.*, 1987, *Genes Dev.* 1:268-277), lymphoid-specific promoters (Calame and Eaton, 1988, *Adv. Immunol.* 43:235-275), in particular promoters of T cell receptors (Winoto and Baltimore, 1989, *EMBO J.* 8:729-733) and immunoglobulins (Banerji *et al.*, 1983, *Cell* 33:729-740; Queen and Baltimore, 1983, *Cell* 33:741-748), neuron-specific promoters
15 (*e.g.*, the neurofilament promoter; Byrne and Ruddell, 1989, *Proc. Natl. Acad. Sci. USA* 86:5473-5477), pancreas-specific promoters (Edlund *et al.*, 1985, *Science* 230:912-916), and mammary gland-specific promoters (*e.g.*, milk whey promoter; U.S. Patent No. 4,873,316 and European Application Publication No. 264,166). Developmentally-regulated promoters are also encompassed, for example the murine hox promoters
20 (Kessel and Gruss, 1990, *Science* 249:374-379) and the α -fetoprotein promoter (Camper and Tilghman, 1989, *Genes Dev.* 3:537-546).

The invention further provides a recombinant expression vector comprising a DNA molecule of the invention cloned into the expression vector in an antisense orientation. That is, the DNA molecule is operably linked to a regulatory sequence in a
25 manner which allows for expression (by transcription of the DNA molecule) of an RNA molecule which is antisense to the mRNA encoding a polypeptide of the invention. Regulatory sequences operably linked to a nucleic acid cloned in the antisense orientation can be chosen which direct the continuous expression of the antisense RNA molecule in a variety of cell types, for instance viral promoters and/or enhancers, or
30 regulatory sequences can be chosen which direct constitutive, tissue-specific or cell type specific expression of antisense RNA. The antisense expression vector can be in the form of a recombinant plasmid, phagemid, or attenuated virus in which antisense nucleic

acids are produced under the control of a high efficiency regulatory region, the activity of which can be determined by the cell type into which the vector is introduced. For a discussion of the regulation of gene expression using antisense genes see Weintraub *et al.*, 1986, *Trends in Genetics*, Vol. 1(1).

5 Another aspect of the invention pertains to host cells into which a recombinant expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due
10 to either mutation or environmental influences, such progeny may not, in fact, be identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic (*e.g.*, *E. coli*) or eukaryotic cell (*e.g.*, insect cells, yeast or mammalian cells).

15 Vector DNA can be introduced into prokaryotic or eukaryotic cells via conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing foreign nucleic acid into a host cell, including calcium phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection,
20 lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al.* (*supra*), and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these
25 integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those which confer resistance to drugs, such as G418, hygromycin and methotrexate. Cells stably transfected with the introduced nucleic acid can be identified by drug selection (*e.g.*, cells that have incorporated the selectable
30 marker gene will survive, while the other cells die).

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A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce a polypeptide corresponding to a marker of the invention. Accordingly, the invention further provides methods for producing a polypeptide corresponding to a marker of the invention using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the marker is produced. In another embodiment, the method further comprises isolating the marker polypeptide from the medium or the host cell.

10 The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a sequences encoding a polypeptide corresponding to a marker of the invention have been introduced. Such host cells can then be used to create non-human transgenic animals in which exogenous sequences
15 encoding a marker protein of the invention have been introduced into their genome or homologous recombinant animals in which endogenous gene(s) encoding a polypeptide corresponding to a marker of the invention sequences have been altered. Such animals are useful for studying the function and/or activity of the polypeptide corresponding to the marker and for identifying and/or evaluating modulators of polypeptide activity. As
20 used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens, amphibians, etc. A transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal
25 develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and
30 an exogenous DNA molecule introduced into a cell of the animal, e.g., an embryonic cell of the animal, prior to development of the animal.

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A transgenic animal of the invention can be created by introducing a nucleic acid encoding a polypeptide corresponding to a marker of the invention into the male pronuclei of a fertilized oocyte, *e.g.*, by microinjection, retroviral infection, and allowing the oocyte to develop in a pseudopregnant female foster animal. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the transgene to direct expression of the polypeptide of the invention to particular cells. Methods for generating transgenic animals via embryo manipulation and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986. Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified based upon the presence of the transgene in its genome and/or expression of mRNA encoding the transgene in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying the transgene can further be bred to other transgenic animals carrying other transgenes.

To create an homologous recombinant animal, a vector is prepared which contains at least a portion of a gene encoding a polypeptide corresponding to a marker of the invention into which a deletion, addition or substitution has been introduced to thereby alter, *e.g.*, functionally disrupt, the gene. In a preferred embodiment, the vector is designed such that, upon homologous recombination, the endogenous gene is functionally disrupted (*i.e.*, no longer encodes a functional protein; also referred to as a "knock out" vector). Alternatively, the vector can be designed such that, upon homologous recombination, the endogenous gene is mutated or otherwise altered but still encodes functional protein (*e.g.*, the upstream regulatory region can be altered to thereby alter the expression of the endogenous protein). In the homologous recombination vector, the altered portion of the gene is flanked at its 5' and 3' ends by additional nucleic acid of the gene to allow for homologous recombination to occur between the exogenous gene carried by the vector and an endogenous gene in an embryonic stem cell. The additional flanking nucleic acid sequences are of sufficient

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length for successful homologous recombination with the endogenous gene. Typically, several kilobases of flanking DNA (both at the 5' and 3' ends) are included in the vector (see, *e.g.*, Thomas and Capecchi, 1987, *Cell* 51:503 for a description of homologous recombination vectors). The vector is introduced into an embryonic stem cell line (*e.g.*,
5 by electroporation) and cells in which the introduced gene has homologously recombined with the endogenous gene are selected (see, *e.g.*, Li *et al.*, 1992, *Cell* 69:915). The selected cells are then injected into a blastocyst of an animal (*e.g.*, a mouse) to form aggregation chimeras (see, *e.g.*, Bradley, *Teratocarcinomas and Embryonic Stem Cells: A Practical Approach*, Robertson, Ed., IRL, Oxford, 1987, pp.
10 113-152). A chimeric embryo can then be implanted into a suitable pseudopregnant female foster animal and the embryo brought to term. Progeny harboring the homologously recombined DNA in their germ cells can be used to breed animals in which all cells of the animal contain the homologously recombined DNA by germline transmission of the transgene. Methods for constructing homologous recombination
15 vectors and homologous recombinant animals are described further in Bradley (1991) *Current Opinion in Bio/Technology* 2:823-829 and in PCT Publication NOS. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169.

In another embodiment, transgenic non-human animals can be produced which contain selected systems which allow for regulated expression of the transgene. One
20 example of such a system is the *cre/loxP* recombinase system of bacteriophage P1. For a description of the *cre/loxP* recombinase system, see, *e.g.*, Lakso *et al.* (1992) *Proc. Natl. Acad. Sci. USA* 89:6232-6236. Another example of a recombinase system is the FLP recombinase system of *Saccharomyces cerevisiae* (O'Gorman *et al.*, 1991, *Science* 251:1351-1355). If a *cre/loxP* recombinase system is used to regulate expression of the
25 transgene, animals containing transgenes encoding both the *Cre* recombinase and a selected protein are required. Such animals can be provided through the construction of "double" transgenic animals, *e.g.*, by mating two transgenic animals, one containing a transgene encoding a selected protein and the other containing a transgene encoding a recombinase.

30 Clones of the non-human transgenic animals described herein can also be produced according to the methods described in Wilmut *et al.* (1997) *Nature* 385:810-813 and PCT Publication NOS. WO 97/07668 and WO 97/07669.

IV. Pharmaceutical Compositions

The nucleic acid molecules, polypeptides, and antibodies (also referred to herein as "active compounds") corresponding to a marker of the invention can be incorporated
5 into pharmaceutical compositions suitable for administration. Such compositions typically comprise the nucleic acid molecule, protein, or antibody and a pharmaceutically acceptable carrier. As used herein the language "pharmaceutically acceptable carrier" is intended to include any and all solvents, dispersion media, coatings, antibacterial and antifungal agents, isotonic and absorption delaying agents,
10 and the like, compatible with pharmaceutical administration. The use of such media and agents for pharmaceutically active substances is well known in the art. Except insofar as any conventional media or agent is incompatible with the active compound, use thereof in the compositions is contemplated. Supplementary active compounds can also be incorporated into the compositions.

15 The invention includes methods for preparing pharmaceutical compositions for modulating the expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such methods comprise formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention. Such compositions can
20 further include additional active agents. Thus, the invention further includes methods for preparing a pharmaceutical composition by formulating a pharmaceutically acceptable carrier with an agent which modulates expression or activity of a polypeptide or nucleic acid corresponding to a marker of the invention and one or more additional active compounds.

25 The invention also provides methods (also referred to herein as "screening assays") for identifying modulators, *i.e.*, candidate or test compounds or agents (*e.g.*, peptides, peptidomimetics, peptoids, small molecules or other drugs) which (a) bind to the marker, or (b) have a modulatory (*e.g.*, stimulatory or inhibitory) effect on the activity of the marker or, more specifically, (c) have a modulatory effect on the
30 interactions of the marker with one or more of its natural substrates (*e.g.*, peptide, protein, hormone, co-factor, or nucleic acid), or (d) have a modulatory effect on the expression of the marker. Such assays typically comprise a reaction between the marker

and one or more assay components. The other components may be either the test compound itself, or a combination of test compound and a natural binding partner of the marker.

The test compounds of the present invention may be obtained from any available
5 source, including systematic libraries of natural and/or synthetic compounds. Test compounds may also be obtained by any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; peptoid libraries (libraries of molecules having the functionalities of peptides, but with a novel, non-peptide backbone which are resistant to enzymatic degradation but which nevertheless
10 remain bioactive; see, *e.g.*, Zuckermann *et al.*, 1994, *J. Med. Chem.* 37:2678-85); spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library and peptoid library approaches are limited to peptide libraries, while the other
15 four approaches are applicable to peptide, non-peptide oligomer or small molecule libraries of compounds (Lam, 1997, *Anticancer Drug Des.* 12:145).

Examples of methods for the synthesis of molecular libraries can be found in the art, for example in: DeWitt *et al.* (1993) *Proc. Natl. Acad. Sci. U.S.A.* 90:6909; Erb *et al.* (1994) *Proc. Natl. Acad. Sci. USA* 91:11422; Zuckermann *et al.* (1994). *J. Med.*
20 *Chem.* 37:2678; Cho *et al.* (1993) *Science* 261:1303; Carrell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2059; Carrell *et al.* (1994) *Angew. Chem. Int. Ed. Engl.* 33:2061; and in Gallop *et al.* (1994) *J. Med. Chem.* 37:1233.

Libraries of compounds may be presented in solution (*e.g.*, Houghten, 1992, *Biotechniques* 13:412-421), or on beads (Lam, 1991, *Nature* 354:82-84), chips (Fodor,
25 1993, *Nature* 364:555-556), bacteria and/or spores, (Ladner, USP 5,223,409), plasmids (Cull *et al.*, 1992, *Proc Natl Acad Sci USA* 89:1865-1869) or on phage (Scott and Smith, 1990, *Science* 249:386-390; Devlin, 1990, *Science* 249:404-406; Cwirla *et al.*, 1990, *Proc. Natl. Acad. Sci.* 87:6378-6382; Felici, 1991, *J. Mol. Biol.* 222:301-310; Ladner, *supra.*).

30 In one embodiment, the invention provides assays for screening candidate or test compounds which are substrates of a marker or biologically active portion thereof. In another embodiment, the invention provides assays for screening candidate or test

compounds which bind to a marker or biologically active portion thereof. Determining the ability of the test compound to directly bind to a marker can be accomplished, for example, by coupling the compound with a radioisotope or enzymatic label such that binding of the compound to the marker can be determined by detecting the labeled
5 marker compound in a complex. For example, compounds (*e.g.*, marker substrates) can be labeled with ^{125}I , ^{35}S , ^{14}C , or ^3H , either directly or indirectly, and the radioisotope detected by direct counting of radioemission or by scintillation counting. Alternatively, assay components can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by
10 determination of conversion of an appropriate substrate to product.

In another embodiment, the invention provides assays for screening candidate or test compounds which modulate the activity of a marker or a biologically active portion thereof. In all likelihood, the marker can, *in vivo*, interact with one or more molecules, such as but not limited to, peptides, proteins, hormones, cofactors and nucleic acids. For
15 the purposes of this discussion, such cellular and extracellular molecules are referred to herein as "binding partners" or marker "substrate".

One necessary embodiment of the invention in order to facilitate such screening is the use of the marker to identify its natural *in vivo* binding partners. There are many ways to accomplish this which are known to one skilled in the art. One example is the
20 use of the marker protein as "bait protein" in a two-hybrid assay or three-hybrid assay (see, *e.g.*, U.S. Patent No. 5,283,317; Zervos *et al.*, 1993, *Cell* 72:223-232; Madura *et al.*, 1993, *J. Biol. Chem.* 268:12046-12054; Bartel *et al.*, 1993, *Biotechniques* 14:920-924; Iwabuchi *et al.*, 1993 *Oncogene* 8:1693-1696; Brent WO94/10300) in order to identify other proteins which bind to or interact with the marker (binding partners) and,
25 therefore, are possibly involved in the natural function of the marker. Such marker binding partners are also likely to be involved in the propagation of signals by the marker or downstream elements of a marker-mediated signaling pathway. Alternatively, such marker binding partners may also be found to be inhibitors of the marker.

The two-hybrid system is based on the modular nature of most transcription
30 factors, which consist of separable DNA-binding and activation domains. Briefly, the assay utilizes two different DNA constructs. In one construct, the gene that encodes a marker protein fused to a gene encoding the DNA binding domain of a known

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transcription factor (*e.g.*, GAL-4). In the other construct, a DNA sequence, from a library of DNA sequences, that encodes an unidentified protein ("prey" or "sample") is fused to a gene that codes for the activation domain of the known transcription factor. If the "bait" and the "prey" proteins are able to interact, *in vivo*, forming a marker-dependent complex, the DNA-binding and activation domains of the transcription factor are brought into close proximity. This proximity allows transcription of a reporter gene (*e.g.*, LacZ) which is operably linked to a transcriptional regulatory site responsive to the transcription factor. Expression of the reporter gene can be readily detected and cell colonies containing the functional transcription factor can be isolated and used to obtain the cloned gene which encodes the protein which interacts with the marker protein.

In a further embodiment, assays may be devised through the use of the invention for the purpose of identifying compounds which modulate (*e.g.*, affect either positively or negatively) interactions between a marker and its substrates and/or binding partners. Such compounds can include, but are not limited to, molecules such as antibodies, peptides, hormones, oligonucleotides, nucleic acids, and analogs thereof. Such compounds may also be obtained from any available source, including systematic libraries of natural and/or synthetic compounds. The preferred assay components for use in this embodiment is an breast cancer marker identified herein, the known binding partner and/or substrate of same, and the test compound. Test compounds can be supplied from any source.

The basic principle of the assay systems used to identify compounds that interfere with the interaction between the marker and its binding partner involves preparing a reaction mixture containing the marker and its binding partner under conditions and for a time sufficient to allow the two products to interact and bind, thus forming a complex. In order to test an agent for inhibitory activity, the reaction mixture is prepared in the presence and absence of the test compound. The test compound can be initially included in the reaction mixture, or can be added at a time subsequent to the addition of the marker and its binding partner. Control reaction mixtures are incubated without the test compound or with a placebo. The formation of any complexes between the marker and its binding partner is then detected. The formation of a complex in the control reaction, but less or no such formation in the reaction mixture containing the test compound, indicates that the compound interferes with the interaction of the marker and its binding

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partner. Conversely, the formation of more complex in the presence of compound than in the control reaction indicates that the compound may enhance interaction of the marker and its binding partner.

The assay for compounds that interfere with the interaction of the marker with its binding partner may be conducted in a heterogeneous or homogeneous format. Heterogeneous assays involve anchoring either the marker or its binding partner onto a solid phase and detecting complexes anchored to the solid phase at the end of the reaction. In homogeneous assays, the entire reaction is carried out in a liquid phase. In either approach, the order of addition of reactants can be varied to obtain different information about the compounds being tested. For example, test compounds that interfere with the interaction between the markers and the binding partners (*e.g.*, by competition) can be identified by conducting the reaction in the presence of the test substance, *i.e.*, by adding the test substance to the reaction mixture prior to or simultaneously with the marker and its interactive binding partner. Alternatively, test compounds that disrupt preformed complexes, *e.g.*, compounds with higher binding constants that displace one of the components from the complex, can be tested by adding the test compound to the reaction mixture after complexes have been formed. The various formats are briefly described below.

In a heterogeneous assay system, either the marker or its binding partner is anchored onto a solid surface or matrix, while the other corresponding non-anchored component may be labeled, either directly or indirectly. In practice, microtitre plates are often utilized for this approach. The anchored species can be immobilized by a number of methods, either non-covalent or covalent, that are typically well known to one who practices the art. Non-covalent attachment can often be accomplished simply by coating the solid surface with a solution of the marker or its binding partner and drying. Alternatively, an immobilized antibody specific for the assay component to be anchored can be used for this purpose. Such surfaces can often be prepared in advance and stored.

In related embodiments, a fusion protein can be provided which adds a domain that allows one or both of the assay components to be anchored to a matrix. For example, glutathione-S-transferase/marker fusion proteins or glutathione-S-transferase/binding partner can be adsorbed onto glutathione sepharose beads (Sigma Chemical, St. Louis, MO) or glutathione derivatized microtiter plates, which are then

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combined with the test compound or the test compound and either the non-adsorbed marker or its binding partner, and the mixture incubated under conditions conducive to complex formation (*e.g.*, physiological conditions). Following incubation, the beads or microtiter plate wells are washed to remove any unbound assay components, the
5 immobilized complex assessed either directly or indirectly, for example, as described above. Alternatively, the complexes can be dissociated from the matrix, and the level of marker binding or activity determined using standard techniques.

Other techniques for immobilizing proteins on matrices can also be used in the screening assays of the invention. For example, either a marker or a marker binding
10 partner can be immobilized utilizing conjugation of biotin and streptavidin. Biotinylated marker protein or target molecules can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In certain embodiments, the protein-immobilized surfaces can be prepared in
15 advance and stored.

In order to conduct the assay, the corresponding partner of the immobilized assay component is exposed to the coated surface with or without the test compound. After the reaction is complete, unreacted assay components are removed (*e.g.*, by washing) and any complexes formed will remain immobilized on the solid surface. The detection
20 of complexes anchored on the solid surface can be accomplished in a number of ways. Where the non-immobilized component is pre-labeled, the detection of label immobilized on the surface indicates that complexes were formed. Where the non-immobilized component is not pre-labeled, an indirect label can be used to detect complexes anchored on the surface; *e.g.*, using a labeled antibody specific for the
25 initially non-immobilized species (the antibody, in turn, can be directly labeled or indirectly labeled with, *e.g.*, a labeled anti-Ig antibody). Depending upon the order of addition of reaction components, test compounds which modulate (*inhibit or enhance*) complex formation or which disrupt preformed complexes can be detected.

In an alternate embodiment of the invention, a homogeneous assay may be used.
30 This is typically a reaction, analogous to those mentioned above, which is conducted in a liquid phase in the presence or absence of the test compound. The formed complexes are then separated from unreacted components, and the amount of complex formed is

determined. As mentioned for heterogeneous assay systems, the order of addition of reactants to the liquid phase can yield information about which test compounds modulate (inhibit or enhance) complex formation and which disrupt preformed complexes.

- 5 In such a homogeneous assay, the reaction products may be separated from unreacted assay components by any of a number of standard techniques, including but not limited to: differential centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, complexes of molecules may be separated from uncomplexed molecules through a series of centrifugal steps, due to the
- 10 different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., *Trends Biochem Sci* 1993 Aug;18(8):284-7). Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an
- 15 appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the relatively different charge properties of the complex as compared to the uncomplexed molecules may be exploited to differentially separate the complex from the remaining individual reactants, for example through the use of ion-exchange
- 20 chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, e.g., Heegaard, 1998, *J Mol. Recognit.* 11:141-148; Hage and Tweed, 1997, *J. Chromatogr. B. Biomed. Sci. Appl.*, 699:499-525). Gel electrophoresis may also be employed to separate complexed molecules from unbound species (see, e.g., Ausubel *et al* (eds.), In: *Current Protocols in Molecular Biology*, J. Wiley & Sons,
- 25 New York. 1999). In this technique, protein or nucleic acid complexes are separated based on size or charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gels in the absence of reducing agent are typically preferred, but conditions appropriate to the particular interactants will be well known to one skilled in the art. Immunoprecipitation is another common technique
- 30 utilized for the isolation of a protein-protein complex from solution (see, e.g., Ausubel *et al* (eds.), In: *Current Protocols in Molecular Biology*, J. Wiley & Sons, New York. 1999). In this technique, all proteins binding to an antibody specific to one of the

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binding molecules are precipitated from solution by conjugating the antibody to a polymer bead that may be readily collected by centrifugation. The bound assay components are released from the beads (through a specific proteolysis event or other technique well known in the art which will not disturb the protein-protein interaction in the complex), and a second immunoprecipitation step is performed, this time utilizing antibodies specific for the correspondingly different interacting assay component. In this manner, only formed complexes should remain attached to the beads. Variations in complex formation in both the presence and the absence of a test compound can be compared, thus offering information about the ability of the compound to modulate interactions between the marker and its binding partner.

Also within the scope of the present invention are methods for direct detection of interactions between the marker and its natural binding partner and/or a test compound in a homogeneous or heterogeneous assay system without further sample manipulation. For example, the technique of fluorescence energy transfer may be utilized (see, *e.g.*, Lakowicz *et al*, U.S. Patent No. 5,631,169; Stavrianopoulos *et al*, U.S. Patent No. 4,868,103). Generally, this technique involves the addition of a fluorophore label on a first 'donor' molecule (*e.g.*, marker or test compound) such that its emitted fluorescent energy will be absorbed by a fluorescent label on a second, 'acceptor' molecule (*e.g.*, marker or test compound), which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter). A test substance which either enhances or hinders participation of one of the species in the preformed complex will result in the generation of a signal variant to that of background. In this way, test substances that modulate interactions between a marker and its binding partner can be identified in controlled assays.

In another embodiment, modulators of marker expression are identified in a method wherein a cell is contacted with a candidate compound and the expression of mRNA or protein, corresponding to a marker in the cell, is determined. The level of expression of mRNA or protein in the presence of the candidate compound is compared to the level of expression of mRNA or protein in the absence of the candidate compound. The candidate compound can then be identified as a modulator of marker expression based on this comparison. For example, when expression of marker mRNA or protein is greater (statistically significantly greater) in the presence of the candidate compound than in its absence, the candidate compound is identified as a stimulator of marker mRNA or protein expression. Conversely, when expression of marker mRNA or protein is less (statistically significantly less) in the presence of the candidate compound than in its absence, the candidate compound is identified as an inhibitor of marker mRNA or protein expression. The level of marker mRNA or protein expression in the cells can be determined by methods described herein for detecting marker mRNA or protein.

In another aspect, the invention pertains to a combination of two or more of the assays described herein. For example, a modulating agent can be identified using a cell-based or a cell free assay, and the ability of the agent to modulate the activity of a marker protein can be further confirmed *in vivo*, *e.g.*, in a whole animal model for cellular transformation and/or tumorigenesis.

This invention further pertains to novel agents identified by the above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (*e.g.*, an marker modulating agent, an antisense marker nucleic acid molecule, an marker-specific antibody, or an marker-binding partner) can be used in an animal model to determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein.

It is understood that appropriate doses of small molecule agents and protein or polypeptide agents depends upon a number of factors within the knowledge of the ordinarily skilled physician, veterinarian, or researcher. The dose(s) of these agents will vary, for example, depending upon the identity, size, and condition of the subject or sample being treated, further depending upon the route by which the composition is to be administered, if applicable, and the effect which the practitioner desires the agent to have upon the nucleic acid or polypeptide of the invention. Exemplary doses of a small molecule include milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 500 milligrams per kilogram, about 100 micrograms per kilogram to about 5 milligrams per kilogram, or about 1 microgram per kilogram to about 50 micrograms per kilogram). Exemplary doses of a protein or polypeptide include gram, milligram or microgram amounts per kilogram of subject or sample weight (*e.g.* about 1 microgram per kilogram to about 5 grams per kilogram, about 100 micrograms per kilogram to about 500 milligrams per kilogram, or about 1 milligram per kilogram to about 50 milligrams per kilogram). It is furthermore understood that appropriate doses of one of these agents depend upon the potency of the agent with respect to the expression or activity to be modulated. Such appropriate doses can be determined using the assays described herein. When one or more of these agents is to be administered to an animal (*e.g.* a human) in order to modulate expression or activity of a polypeptide or nucleic acid of the invention, a physician, veterinarian, or researcher can, for example, prescribe a relatively low dose at first, subsequently increasing the dose until an appropriate response is obtained. In addition, it is understood that the specific dose level for any particular animal subject will depend upon a variety of factors including the activity of the specific agent employed, the age, body weight, general health, gender, and diet of the subject, the time of administration, the route of administration, the rate of excretion, any drug combination, and the degree of expression or activity to be modulated.

A pharmaceutical composition of the invention is formulated to be compatible with its intended route of administration. Examples of routes of administration include parenteral, *e.g.*, intravenous, intradermal, subcutaneous, oral (*e.g.*, inhalation), transdermal (topical), transmucosal, and rectal administration. Solutions or suspensions used for parenteral, intradermal, or subcutaneous application can include the following

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components: a sterile diluent such as water for injection, saline solution, fixed oils, polyethylene glycols, glycerine, propylene glycol or other synthetic solvents; antibacterial agents such as benzyl alcohol or methyl parabens; antioxidants such as ascorbic acid or sodium bisulfite; chelating agents such as ethylenediamine-tetraacetic acid; buffers such as acetates, citrates or phosphates and agents for the adjustment of tonicity such as sodium chloride or dextrose. pH can be adjusted with acids or bases, such as hydrochloric acid or sodium hydroxide. The parenteral preparation can be enclosed in ampules, disposable syringes or multiple dose vials made of glass or plastic.

Pharmaceutical compositions suitable for injectable use include sterile aqueous solutions (where water soluble) or dispersions and sterile powders for the extemporaneous preparation of sterile injectable solutions or dispersions. For intravenous administration, suitable carriers include physiological saline, bacteriostatic water, Cremophor EL (BASF; Parsippany, NJ) or phosphate buffered saline (PBS). In all cases, the composition must be sterile and should be fluid to the extent that easy syringability exists. It must be stable under the conditions of manufacture and storage and must be preserved against the contaminating action of microorganisms such as bacteria and fungi. The carrier can be a solvent or dispersion medium containing, for example, water, ethanol, polyol (for example, glycerol, propylene glycol, and liquid polyethylene glycol, and the like), and suitable mixtures thereof. The proper fluidity can be maintained, for example, by the use of a coating such as lecithin, by the maintenance of the required particle size in the case of dispersion and by the use of surfactants. Prevention of the action of microorganisms can be achieved by various antibacterial and antifungal agents, for example, parabens, chlorobutanol, phenol, ascorbic acid, thimerosal, and the like. In many cases, it will be preferable to include isotonic agents, for example, sugars, polyalcohols such as mannitol, sorbitol, or sodium chloride in the composition. Prolonged absorption of the injectable compositions can be brought about by including in the composition an agent which delays absorption, for example, aluminum monostearate and gelatin.

Sterile injectable solutions can be prepared by incorporating the active compound (e.g., a polypeptide or antibody) in the required amount in an appropriate solvent with one or a combination of ingredients enumerated above, as required, followed by filtered sterilization. Generally, dispersions are prepared by incorporating the active compound

into a sterile vehicle which contains a basic dispersion medium, and then incorporating the required other ingredients from those enumerated above. In the case of sterile powders for the preparation of sterile injectable solutions, the preferred methods of preparation are vacuum drying and freeze-drying which yields a powder of the active
5 ingredient plus any additional desired ingredient from a previously sterile-filtered solution thereof.

Oral compositions generally include an inert diluent or an edible carrier. They can be enclosed in gelatin capsules or compressed into tablets. For the purpose of oral therapeutic administration, the active compound can be incorporated with excipients and
10 used in the form of tablets, troches, or capsules. Oral compositions can also be prepared using a fluid carrier for use as a mouthwash, wherein the compound in the fluid carrier is applied orally and swished and expectorated or swallowed.

Pharmaceutically compatible binding agents, and/or adjuvant materials can be included as part of the composition. The tablets, pills, capsules, troches, and the like can
15 contain any of the following ingredients, or compounds of a similar nature: a binder such as microcrystalline cellulose, gum tragacanth or gelatin; an excipient such as starch or lactose, a disintegrating agent such as alginic acid, Primogel, or corn starch; a lubricant such as magnesium stearate or Sterotes; a glidant such as colloidal silicon dioxide; a sweetening agent such as sucrose or saccharin; or a flavoring agent such as
20 peppermint, methyl salicylate, or orange flavoring.

For administration by inhalation, the compounds are delivered in the form of an aerosol spray from a pressurized container or dispenser which contains a suitable propellant, *e.g.*, a gas such as carbon dioxide, or a nebulizer.

Systemic administration can also be by transmucosal or transdermal means. For
25 transmucosal or transdermal administration, penetrants appropriate to the barrier to be permeated are used in the formulation. Such penetrants are generally known in the art, and include, for example, for transmucosal administration, detergents, bile salts, and fusidic acid derivatives. Transmucosal administration can be accomplished through the use of nasal sprays or suppositories. For transdermal administration, the active
30 compounds are formulated into ointments, salves, gels, or creams as generally known in the art.

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The compounds can also be prepared in the form of suppositories (*e.g.*, with conventional suppository bases such as cocoa butter and other glycerides) or retention enemas for rectal delivery.

In one embodiment, the active compounds are prepared with carriers that will protect the compound against rapid elimination from the body, such as a controlled release formulation, including implants and microencapsulated delivery systems. Biodegradable, biocompatible polymers can be used, such as ethylene vinyl acetate, polyanhydrides, polyglycolic acid, collagen, polyorthoesters, and polylactic acid. Methods for preparation of such formulations will be apparent to those skilled in the art.

10 The materials can also be obtained commercially from Alza Corporation and Nova Pharmaceuticals, Inc. Liposomal suspensions (including liposomes having monoclonal antibodies incorporated therein or thereon) can also be used as pharmaceutically acceptable carriers. These can be prepared according to methods known to those skilled in the art, for example, as described in U.S. Patent No. 4,522,811.

15 It is especially advantageous to formulate oral or parenteral compositions in dosage unit form for ease of administration and uniformity of dosage. Dosage unit form as used herein refers to physically discrete units suited as unitary dosages for the subject to be treated; each unit containing a predetermined quantity of active compound calculated to produce the desired therapeutic effect in association with the required

20 pharmaceutical carrier. The specification for the dosage unit forms of the invention are dictated by and directly dependent on the unique characteristics of the active compound and the particular therapeutic effect to be achieved, and the limitations inherent in the art of compounding such an active compound for the treatment of individuals.

For antibodies, the preferred dosage is 0.1 mg/kg to 100 mg/kg of body weight (generally 10 mg/kg to 20 mg/kg). If the antibody is to act in the brain, a dosage of 50 mg/kg to 100 mg/kg is usually appropriate. Generally, partially human antibodies and fully human antibodies have a longer half-life within the human body than other antibodies. Accordingly, lower dosages and less frequent administration is often possible. Modifications such as lipidation can be used to stabilize antibodies and to

30 enhance uptake and tissue penetration (*e.g.*, into the breast epithelium). A method for lipidation of antibodies is described by Cruikshank *et al.* (1997) *J. Acquired Immune Deficiency Syndromes and Human Retrovirology* 14:193.

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The nucleic acid molecules corresponding to a marker of the invention can be inserted into vectors and used as gene therapy vectors. Gene therapy vectors can be delivered to a subject by, for example, intravenous injection, local administration (U.S. Patent 5,328,470), or by stereotactic injection (see, *e.g.*, Chen *et al.*, 1994, *Proc. Natl. Acad. Sci. USA* 91:3054-3057). The pharmaceutical preparation of the gene therapy vector can include the gene therapy vector in an acceptable diluent, or can comprise a slow release matrix in which the gene delivery vehicle is imbedded. Alternatively, where the complete gene delivery vector can be produced intact from recombinant cells, *e.g.* retroviral vectors, the pharmaceutical preparation can include one or more cells which produce the gene delivery system.

The pharmaceutical compositions can be included in a container, pack, or dispenser together with instructions for administration.

V. Electronic Apparatus Readable Media and Arrays

Electronic apparatus readable media comprising a breast cancer marker of the present invention is also provided. As used herein, "electronic apparatus readable media" refers to any suitable medium for storing, holding or containing data or information that can be read and accessed directly by an electronic apparatus. Such media can include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as compact disc; electronic storage media such as RAM, ROM, EPROM, EEPROM and the like; general hard disks and hybrids of these categories such as magnetic/optical storage media. The medium is adapted or configured for having recorded thereon a marker of the present invention.

As used herein, the term "electronic apparatus" is intended to include any suitable computing or processing apparatus or other device configured or adapted for storing data or information. Examples of electronic apparatus suitable for use with the present invention include stand-alone computing apparatus; networks, including a local area network (LAN), a wide area network (WAN) Internet, Intranet, and Extranet; electronic appliances such as a personal digital assistants (PDAs), cellular phone, pager and the like; and local and distributed processing systems.

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As used herein, "recorded" refers to a process for storing or encoding information on the electronic apparatus readable medium. Those skilled in the art can readily adopt any of the presently known methods for recording information on known media to generate manufactures comprising the markers of the present invention.

5 A variety of software programs and formats can be used to store the marker information of the present invention on the electronic apparatus readable medium. For example, the nucleic acid sequence corresponding to the markers can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in
10 a database application, such as DB2, Sybase, Oracle, or the like, as well as in other forms. Any number of dataprocessor structuring formats (*e.g.*, text file or database) may be employed in order to obtain or create a medium having recorded thereon the markers of the present invention.

By providing the markers of the invention in readable form, one can routinely
15 access the marker sequence information for a variety of purposes. For example, one skilled in the art can use the nucleotide or amino acid sequences of the present invention in readable form to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the sequences of the invention which match a particular
20 target sequence or target motif.

The present invention therefore provides a medium for holding instructions for performing a method for determining whether a subject has breast cancer or a pre-disposition to breast cancer, wherein the method comprises the steps of determining the presence or absence of a breast cancer marker and based on the presence or absence of
25 the breast cancer marker, determining whether the subject has breast cancer or a pre-disposition to breast cancer and/or recommending a particular treatment for the breast cancer or pre- breast cancer condition.

The present invention further provides in an electronic system and/or in a network, a method for determining whether a subject has breast cancer or a pre-disposition to breast cancer associated with a breast cancer marker wherein the method
30 comprises the steps of determining the presence or absence of the breast cancer marker, and based on the presence or absence of the breast cancer marker, determining whether

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the subject has breast cancer or a pre-disposition to breast cancer, and/or recommending a particular treatment for the breast cancer or pre- breast cancer condition. The method may further comprise the step of receiving phenotypic information associated with the subject and/or acquiring from a network phenotypic information associated with the
5 subject.

The present invention also provides in a network, a method for determining whether a subject has breast cancer or a pre-disposition to breast cancer associated with a breast cancer marker, said method comprising the steps of receiving information associated with the breast cancer marker receiving phenotypic information associated
10 with the subject, acquiring information from the network corresponding to the breast cancer marker and/or breast cancer, and based on one or more of the phenotypic information, the breast cancer marker, and the acquired information, determining whether the subject has breast cancer or a pre-disposition to breast cancer. The method may further comprise the step of recommending a particular treatment for the breast
15 cancer or pre- breast cancer condition.

The present invention also provides a business method for determining whether a subject has breast cancer or a pre-disposition to breast cancer, said method comprising the steps of receiving information associated with the breast cancer marker, receiving phenotypic information associated with the subject, acquiring information from the
20 network corresponding to the breast cancer marker and/or breast cancer, and based on one or more of the phenotypic information, the breast cancer marker, and the acquired information, determining whether the subject has breast cancer or a pre-disposition to breast cancer. The method may further comprise the step of recommending a particular treatment for the breast cancer or pre- breast cancer condition.

The invention also includes an array comprising a breast cancer marker of the present invention. The array can be used to assay expression of one or more genes in the array. In one embodiment, the array can be used to assay gene expression in a tissue to ascertain tissue specificity of genes in the array. In this manner, up to about 7600 genes can be simultaneously assayed for expression. This allows a profile to be
25 developed showing a battery of genes specifically expressed in one or more tissues.
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In addition to such qualitative determination, the invention allows the quantitation of gene expression. Thus, not only tissue specificity, but also the level of expression of a battery of genes in the tissue is ascertainable. Thus, genes can be grouped on the basis of their tissue expression *per se* and level of expression in that tissue. This is useful, for example, in ascertaining the relationship of gene expression between or among tissues. Thus, one tissue can be perturbed and the effect on gene expression in a second tissue can be determined. In this context, the effect of one cell type on another cell type in response to a biological stimulus can be determined. Such a determination is useful, for example, to know the effect of cell-cell interaction at the level of gene expression. If an agent is administered therapeutically to treat one cell type but has an undesirable effect on another cell type, the invention provides an assay to determine the molecular basis of the undesirable effect and thus provides the opportunity to co-administer a counteracting agent or otherwise treat the undesired effect. Similarly, even within a single cell type, undesirable biological effects can be determined at the molecular level. Thus, the effects of an agent on expression of other than the target gene can be ascertained and counteracted.

In another embodiment, the array can be used to monitor the time course of expression of one or more genes in the array. This can occur in various biological contexts, as disclosed herein, for example development of breast cancer, progression of breast cancer, and processes, such a cellular transformation associated with breast cancer.

The array is also useful for ascertaining the effect of the expression of a gene on the expression of other genes in the same cell or in different cells. This provides, for example, for a selection of alternate molecular targets for therapeutic intervention if the ultimate or downstream target cannot be regulated.

The array is also useful for ascertaining differential expression patterns of one or more genes in normal and abnormal cells. This provides a battery of genes that could serve as a molecular target for diagnosis or therapeutic intervention.

30 VI. Predictive Medicine

The present invention pertains to the field of predictive medicine in which diagnostic assays, prognostic assays, pharmacogenomics, and monitoring clinical trials

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are used for prognostic (predictive) purposes to thereby treat an individual prophylactically. Accordingly, one aspect of the present invention relates to diagnostic assays for determining the level of expression of polypeptides or nucleic acids corresponding to one or more markers of the invention, in order to determine whether
5 an individual is at risk of developing breast cancer. Such assays can be used for prognostic or predictive purposes to thereby prophylactically treat an individual prior to the onset of the cancer.

Yet another aspect of the invention pertains to monitoring the influence of agents (e.g., drugs or other compounds administered either to inhibit breast cancer or to treat or
10 prevent any other disorder {i.e. in order to understand any breast carcinogenic effects that such treatment may have}) on the expression or activity of a marker of the invention in clinical trials. These and other agents are described in further detail in the following sections.

15 A. Diagnostic Assays

An exemplary method for detecting the presence or absence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample involves obtaining a biological sample (e.g. a breast-associated body fluid) from a test subject and contacting the biological sample with a compound or an agent capable of detecting
20 the polypeptide or nucleic acid (e.g., mRNA, genomic DNA, or cDNA). The detection methods of the invention can thus be used to detect mRNA, protein, cDNA, or genomic DNA, for example, in a biological sample *in vitro* as well as *in vivo*. For example, *in vitro* techniques for detection of mRNA include Northern hybridizations and *in situ* hybridizations. *In vitro* techniques for detection of a polypeptide corresponding to a
25 marker of the invention include enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. *In vitro* techniques for detection of genomic DNA include Southern hybridizations. Furthermore, *in vivo* techniques for detection of a polypeptide corresponding to a marker of the invention include introducing into a subject a labeled antibody directed against the polypeptide.
30 For example, the antibody can be labeled with a radioactive marker whose presence and location in a subject can be detected by standard imaging techniques.

A general principle of such diagnostic and prognostic assays involves preparing a sample or reaction mixture that may contain a marker, and a probe, under appropriate conditions and for a time sufficient to allow the marker and probe to interact and bind, thus forming a complex that can be removed and/or detected in the reaction mixture.

5 These assays can be conducted in a variety of ways.

For example, one method to conduct such an assay would involve anchoring the marker or probe onto a solid phase support, also referred to as a substrate, and detecting target marker/probe complexes anchored on the solid phase at the end of the reaction. In one embodiment of such a method, a sample from a subject, which is to be assayed
10 for presence and/or concentration of marker, can be anchored onto a carrier or solid phase support. In another embodiment, the reverse situation is possible, in which the probe can be anchored to a solid phase and a sample from a subject can be allowed to react as an unanchored component of the assay.

There are many established methods for anchoring assay components to a solid
15 phase. These include, without limitation, marker or probe molecules which are immobilized through conjugation of biotin and streptavidin. Such biotinylated assay components can be prepared from biotin-NHS (N-hydroxy-succinimide) using techniques known in the art (*e.g.*, biotinylation kit, Pierce Chemicals, Rockford, IL), and immobilized in the wells of streptavidin-coated 96 well plates (Pierce Chemical). In
20 certain embodiments, the surfaces with immobilized assay components can be prepared in advance and stored.

Other suitable carriers or solid phase supports for such assays include any material capable of binding the class of molecule to which the marker or probe belongs. Well-known supports or carriers include, but are not limited to, glass, polystyrene,
25 nylon, polypropylene, nylon, polyethylene, dextran, amylases, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

In order to conduct assays with the above mentioned approaches, the non-immobilized component is added to the solid phase upon which the second component is anchored. After the reaction is complete, uncomplexed components may be removed
30 (*e.g.*, by washing) under conditions such that any complexes formed will remain immobilized upon the solid phase. The detection of marker/probe complexes anchored to the solid phase can be accomplished in a number of methods outlined herein.

In a preferred embodiment, the probe, when it is the unanchored assay component, can be labeled for the purpose of detection and readout of the assay, either directly or indirectly, with detectable labels discussed herein and which are well-known to one skilled in the art.

5 It is also possible to directly detect marker/probe complex formation without further manipulation or labeling of either component (marker or probe), for example by utilizing the technique of fluorescence energy transfer (see, for example, Lakowicz *et al.*, U.S. Patent No. 5,631,169; Stavrianopoulos, *et al.*, U.S. Patent No. 4,868,103). A fluorophore label on the first, 'donor' molecule is selected such that, upon excitation
10 with incident light of appropriate wavelength, its emitted fluorescent energy will be absorbed by a fluorescent label on a second 'acceptor' molecule, which in turn is able to fluoresce due to the absorbed energy. Alternately, the 'donor' protein molecule may simply utilize the natural fluorescent energy of tryptophan residues. Labels are chosen that emit different wavelengths of light, such that the 'acceptor' molecule label may be
15 differentiated from that of the 'donor'. Since the efficiency of energy transfer between the labels is related to the distance separating the molecules, spatial relationships between the molecules can be assessed. In a situation in which binding occurs between the molecules, the fluorescent emission of the 'acceptor' molecule label in the assay should be maximal. An FET binding event can be conveniently measured through
20 standard fluorometric detection means well known in the art (*e.g.*, using a fluorimeter).

 In another embodiment, determination of the ability of a probe to recognize a marker can be accomplished without labeling either assay component (probe or marker) by utilizing a technology such as real-time Biomolecular Interaction Analysis (BIA) (see, *e.g.*, Sjolander, S. and Urbaniczky, C., 1991, *Anal. Chem.* 63:2338-2345 and
25 Szabo *et al.*, 1995, *Curr. Opin. Struct. Biol.* 5:699-705). As used herein, "BIA" or "surface plasmon resonance" is a technology for studying biospecific interactions in real time, without labeling any of the interactants (*e.g.*, BIAcore). Changes in the mass at the binding surface (indicative of a binding event) result in alterations of the refractive index of light near the surface (the optical phenomenon of surface plasmon resonance (SPR)),
30 resulting in a detectable signal which can be used as an indication of real-time reactions between biological molecules.

Alternatively, in another embodiment, analogous diagnostic and prognostic assays can be conducted with marker and probe as solutes in a liquid phase. In such an assay, the complexed marker and probe are separated from uncomplexed components by any of a number of standard techniques, including but not limited to: differential

5 centrifugation, chromatography, electrophoresis and immunoprecipitation. In differential centrifugation, marker/probe complexes may be separated from uncomplexed assay components through a series of centrifugal steps, due to the different sedimentation equilibria of complexes based on their different sizes and densities (see, for example, Rivas, G., and Minton, A.P., 1993, *Trends Biochem Sci.* 18(8):284-7).

10 Standard chromatographic techniques may also be utilized to separate complexed molecules from uncomplexed ones. For example, gel filtration chromatography separates molecules based on size, and through the utilization of an appropriate gel filtration resin in a column format, for example, the relatively larger complex may be separated from the relatively smaller uncomplexed components. Similarly, the

15 relatively different charge properties of the marker/probe complex as compared to the uncomplexed components may be exploited to differentiate the complex from uncomplexed components, for example through the utilization of ion-exchange chromatography resins. Such resins and chromatographic techniques are well known to one skilled in the art (see, e.g., Heegaard, N.H., 1998, *J. Mol. Recognit.* Winter 11(1-

20 6):141-8; Hage, D.S., and Tweed, S.A. *J Chromatogr B Biomed Sci Appl* 1997 Oct 10;699(1-2):499-525). Gel electrophoresis may also be employed to separate complexed assay components from unbound components (see, e.g., Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York, 1987-1999). In this technique, protein or nucleic acid complexes are separated based on size or

25 charge, for example. In order to maintain the binding interaction during the electrophoretic process, non-denaturing gel matrix materials and conditions in the absence of reducing agent are typically preferred. Appropriate conditions to the particular assay and components thereof will be well known to one skilled in the art.

In a particular embodiment, the level of mRNA corresponding to the marker can

30 be determined both by *in situ* and by *in vitro* formats in a biological sample using methods known in the art. The term "biological sample" is intended to include tissues, cells, biological fluids and isolates thereof, isolated from a subject, as well as tissues,

cells and fluids present within a subject. Many expression detection methods use isolated RNA. For *in vitro* methods, any RNA isolation technique that does not select against the isolation of mRNA can be utilized for the purification of RNA from breast cells (see, *e.g.*, Ausubel *et al.*, ed., *Current Protocols in Molecular Biology*, John Wiley & Sons, New York 1987-1999). Additionally, large numbers of tissue samples can readily be processed using techniques well known to those of skill in the art, such as, for example, the single-step RNA isolation process of Chomczynski (1989, U.S. Patent No. 4,843,155).

The isolated mRNA can be used in hybridization or amplification assays that include, but are not limited to, Southern or Northern analyses, polymerase chain reaction analyses and probe arrays. One preferred diagnostic method for the detection of mRNA levels involves contacting the isolated mRNA with a nucleic acid molecule (probe) that can hybridize to the mRNA encoded by the gene being detected. The nucleic acid probe can be, for example, a full-length cDNA, or a portion thereof, such as an oligonucleotide of at least 7, 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to a mRNA or genomic DNA encoding a marker of the present invention. Other suitable probes for use in the diagnostic assays of the invention are described herein. Hybridization of an mRNA with the probe indicates that the marker in question is being expressed.

In one format, the mRNA is immobilized on a solid surface and contacted with a probe, for example by running the isolated mRNA on an agarose gel and transferring the mRNA from the gel to a membrane, such as nitrocellulose. In an alternative format, the probe(s) are immobilized on a solid surface and the mRNA is contacted with the probe(s), for example, in an Affymetrix gene chip array. A skilled artisan can readily adapt known mRNA detection methods for use in detecting the level of mRNA encoded by the markers of the present invention.

An alternative method for determining the level of mRNA corresponding to a marker of the present invention in a sample involves the process of nucleic acid amplification, *e.g.*, by rtPCR (the experimental embodiment set forth in Mullis, 1987, U.S. Patent No. 4,683,202), ligase chain reaction (Barany, 1991, *Proc. Natl. Acad. Sci. USA*, 88:189-193), self sustained sequence replication (Guatelli *et al.*, 1990, *Proc. Natl. Acad. Sci. USA* 87:1874-1878), transcriptional amplification system (Kwoh *et al.*, 1989,

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Proc. Natl. Acad. Sci. USA 86:1173-1177), Q-Beta Replicase (Lizardi *et al.*, 1988, *Bio/Technology* 6:1197), rolling circle replication (Lizardi *et al.*, U.S. Patent No. 5,854,033) or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if such molecules are present in very low numbers. As used herein, amplification primers are defined as being a pair of nucleic acid molecules that can anneal to 5' or 3' regions of a gene (plus and minus strands, respectively, or vice-versa) and contain a short region in between. In general, amplification primers are from about 10 to 30 nucleotides in length and flank a region from about 50 to 200 nucleotides in length. Under appropriate conditions and with appropriate reagents, such primers permit the amplification of a nucleic acid molecule comprising the nucleotide sequence flanked by the primers.

For *in situ* methods, mRNA does not need to be isolated from the breast cells prior to detection. In such methods, a cell or tissue sample is prepared/processed using known histological methods. The sample is then immobilized on a support, typically a glass slide, and then contacted with a probe that can hybridize to mRNA that encodes the marker.

As an alternative to making determinations based on the absolute expression level of the marker, determinations may be based on the normalized expression level of the marker. Expression levels are normalized by correcting the absolute expression level of a marker by comparing its expression to the expression of a gene that is not a marker, *e.g.*, a housekeeping gene that is constitutively expressed. Suitable genes for normalization include housekeeping genes such as the actin gene, or epithelial cell-specific genes. This normalization allows the comparison of the expression level in one sample, *e.g.*, a patient sample, to another sample, *e.g.*, a non-breast cancer sample, or between samples from different sources.

Alternatively, the expression level can be provided as a relative expression level. To determine a relative expression level of a marker, the level of expression of the marker is determined for 10 or more samples of normal versus cancer cell isolates, preferably 50 or more samples, prior to the determination of the expression level for the sample in question. The mean expression level of each of the genes assayed in the larger number of samples is determined and this is used as a baseline expression level

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for the marker. The expression level of the marker determined for the test sample (absolute level of expression) is then divided by the mean expression value obtained for that marker. This provides a relative expression level.

Preferably, the samples used in the baseline determination will be from breast cancer or from non-breast cancer cells of breast tissue. The choice of the cell source is dependent on the use of the relative expression level. Using expression found in normal tissues as a mean expression score aids in validating whether the marker assayed is breast specific (versus normal cells). In addition, as more data is accumulated, the mean expression value can be revised, providing improved relative expression values based on accumulated data. Expression data from breast cells provides a means for grading the severity of the breast cancer state.

In another embodiment of the present invention, a polypeptide corresponding to a marker is detected. A preferred agent for detecting a polypeptide of the invention is an antibody capable of binding to a polypeptide corresponding to a marker of the invention, preferably an antibody with a detectable label. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (*e.g.*, Fab or F(ab')₂) can be used. The term "labeled", with regard to the probe or antibody, is intended to encompass direct labeling of the probe or antibody by coupling (*i.e.*, physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be detected with fluorescently labeled streptavidin.

Proteins from breast cells can be isolated using techniques that are well known to those of skill in the art. The protein isolation methods employed can, for example, be such as those described in Harlow and Lane (Harlow and Lane, 1988, *Antibodies: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York).

A variety of formats can be employed to determine whether a sample contains a protein that binds to a given antibody. Examples of such formats include, but are not limited to, enzyme immunoassay (EIA), radioimmunoassay (RIA), Western blot analysis and enzyme linked immunoabsorbant assay (ELISA). A skilled artisan can

readily adapt known protein/antibody detection methods for use in determining whether breast cells express a marker of the present invention.

In one format, antibodies, or antibody fragments, can be used in methods such as Western blots or immunofluorescence techniques to detect the expressed proteins. In such uses, it is generally preferable to immobilize either the antibody or proteins on a solid support. Suitable solid phase supports or carriers include any support capable of binding an antigen or an antibody. Well-known supports or carriers include glass, polystyrene, polypropylene, polyethylene, dextran, nylon, amyloses, natural and modified celluloses, polyacrylamides, gabbros, and magnetite.

One skilled in the art will know many other suitable carriers for binding antibody or antigen, and will be able to adapt such support for use with the present invention. For example, protein isolated from breast cells can be run on a polyacrylamide gel electrophoresis and immobilized onto a solid phase support such as nitrocellulose. The support can then be washed with suitable buffers followed by treatment with the detectably labeled antibody. The solid phase support can then be washed with the buffer a second time to remove unbound antibody. The amount of bound label on the solid support can then be detected by conventional means.

The invention also encompasses kits for detecting the presence of a polypeptide or nucleic acid corresponding to a marker of the invention in a biological sample (*e.g.* an breast-associated body fluid). Such kits can be used to determine if a subject is suffering from or is at increased risk of developing breast cancer. For example, the kit can comprise a labeled compound or agent capable of detecting a polypeptide or an mRNA encoding a polypeptide corresponding to a marker of the invention in a biological sample and means for determining the amount of the polypeptide or mRNA in the sample (*e.g.*, an antibody which binds the polypeptide or an oligonucleotide probe which binds to DNA or mRNA encoding the polypeptide). Kits can also include instructions for interpreting the results obtained using the kit.

For antibody-based kits, the kit can comprise, for example: (1) a first antibody (*e.g.*, attached to a solid support) which binds to a polypeptide corresponding to a marker of the invention; and, optionally, (2) a second, different antibody which binds to either the polypeptide or the first antibody and is conjugated to a detectable label.

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For oligonucleotide-based kits, the kit can comprise, for example: (1) an oligonucleotide, *e.g.*, a detectably labeled oligonucleotide, which hybridizes to a nucleic acid sequence encoding a polypeptide corresponding to a marker of the invention or (2) a pair of primers useful for amplifying a nucleic acid molecule corresponding to a marker of the invention. The kit can also comprise, *e.g.*, a buffering agent, a preservative, or a protein stabilizing agent. The kit can further comprise components necessary for detecting the detectable label (*e.g.*, an enzyme or a substrate). The kit can also contain a control sample or a series of control samples which can be assayed and compared to the test sample. Each component of the kit can be enclosed within an individual container and all of the various containers can be within a single package, along with instructions for interpreting the results of the assays performed using the kit.

B. Pharmacogenomics

Agents or modulators which have a stimulatory or inhibitory effect on expression of a marker of the invention can be administered to individuals to treat (prophylactically or therapeutically) breast cancer in the patient. In conjunction with such treatment, the pharmacogenomics (*i.e.*, the study of the relationship between an individual's genotype and that individual's response to a foreign compound or drug) of the individual may be considered. Differences in metabolism of therapeutics can lead to severe toxicity or therapeutic failure by altering the relation between dose and blood concentration of the pharmacologically active drug. Thus, the pharmacogenomics of the individual permits the selection of effective agents (*e.g.*, drugs) for prophylactic or therapeutic treatments based on a consideration of the individual's genotype. Such pharmacogenomics can further be used to determine appropriate dosages and therapeutic regimens. Accordingly, the level of expression of a marker of the invention in an individual can be determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual.

Pharmacogenomics deals with clinically significant variations in the response to drugs due to altered drug disposition and abnormal action in affected persons. See, *e.g.*, Linder (1997) *Clin. Chem.* 43(2):254-266. In general, two types of pharmacogenetic conditions can be differentiated. Genetic conditions transmitted as a single factor altering the way drugs act on the body are referred to as "altered drug action." Genetic

conditions transmitted as single factors altering the way the body acts on drugs are referred to as "altered drug metabolism". These pharmacogenetic conditions can occur either as rare defects or as polymorphisms. For example, glucose-6-phosphate dehydrogenase (G6PD) deficiency is a common inherited enzymopathy in which the
5 main clinical complication is hemolysis after ingestion of oxidant drugs (anti-malarials, sulfonamides, analgesics, nitrofurans) and consumption of fava beans.

As an illustrative embodiment, the activity of drug metabolizing enzymes is a major determinant of both the intensity and duration of drug action. The discovery of genetic polymorphisms of drug metabolizing enzymes (*e.g.*, N-acetyltransferase 2 (NAT
10 2) and cytochrome P450 enzymes CYP2D6 and CYP2C19) has provided an explanation as to why some patients do not obtain the expected drug effects or show exaggerated drug response and serious toxicity after taking the standard and safe dose of a drug. These polymorphisms are expressed in two phenotypes in the population, the extensive metabolizer (EM) and poor metabolizer (PM). The prevalence of PM is different among
15 different populations. For example, the gene coding for CYP2D6 is highly polymorphic and several mutations have been identified in PM, which all lead to the absence of functional CYP2D6. Poor metabolizers of CYP2D6 and CYP2C19 quite frequently experience exaggerated drug response and side effects when they receive standard doses. If a metabolite is the active therapeutic moiety, a PM will show no therapeutic
20 response, as demonstrated for the analgesic effect of codeine mediated by its CYP2D6-formed metabolite morphine. The other extreme are the so called ultra-rapid metabolizers who do not respond to standard doses. Recently, the molecular basis of ultra-rapid metabolism has been identified to be due to CYP2D6 gene amplification.

Thus, the level of expression of a marker of the invention in an individual can be
25 determined to thereby select appropriate agent(s) for therapeutic or prophylactic treatment of the individual. In addition, pharmacogenetic studies can be used to apply genotyping of polymorphic alleles encoding drug-metabolizing enzymes to the identification of an individual's drug responsiveness phenotype. This knowledge, when applied to dosing or drug selection, can avoid adverse reactions or therapeutic failure
30 and thus enhance therapeutic or prophylactic efficiency when treating a subject with a modulator of expression of a marker of the invention.

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This invention also provides a process for preparing a database comprising at least one of the markers set forth in Tables 1-6. For example, the polynucleotide sequences are stored in a digital storage medium such that a data processing system for standardized representation of the genes that identify a breast cancer cell is compiled.

- 5 The data processing system is useful to analyze gene expression between two cells by first selecting a cell suspected of being of a neoplastic phenotype or genotype and then isolating polynucleotides from the cell. The isolated polynucleotides are sequenced. The sequences from the sample are compared with the sequence(s) present in the database using homology search techniques. Greater than 90%, more preferably greater than 95% and more preferably, greater than or equal to 97% sequence identity between
10 the test sequence and the polynucleotides of the present invention is a positive indication that the polynucleotide has been isolated from a breast cancer cell as defined above.

- In an alternative embodiment, the polynucleotides of this invention are sequenced and the information regarding sequence and in some embodiments, relative expression,
15 is stored in any functionally relevant program, e.g., in Compare Report using the SAGE software (available through Dr. Ken Kinzler at John Hopkins University). The Compare Report provides a tabulation of the polynucleotide sequences and their abundance for the samples normalized to a defined number of polynucleotides per library (say 25,000). This is then imported into MS-ACCESS either directly or via copying the data into an
20 Excel spreadsheet first and then from there into MS-ACCESS for additional manipulations. Other programs such as SYBASE or Oracle that permit the comparison of polynucleotide numbers could be used as alternatives to MS-ACCESS. Enhancements to the software can be designed to incorporate these additional functions. These functions consist in standard Boolean, algebraic, and text search operations,
25 applied in various combinations to reduce a large input set of polynucleotides to a manageable subset of a polynucleotide of specifically defined interest.

- One skilled in the art may create groups containing one or more project(s) by combining the counts of specific polynucleotides within a group (e.g., $\text{GroupNormal} = \text{Normal1} + \text{Normal2}$, $\text{GroupTumor1} + \text{TumorCellLine}$). Additional characteristic values
30 are also calculated for each tag in the group (e.g., average count, minimum count, maximum count). One skilled in the art may calculate individual tag count ratios between groups, for example the ratio of the average GroupNormal count to the average

GroupTumor count for each polynucleotide. A statistical measure of the significance of observed differences in tag counts between groups may be calculated.

C. Monitoring Clinical Trials

5 Monitoring the influence of agents (*e.g.*, drug compounds) on the level of expression of a marker of the invention can be applied not only in basic drug screening, but also in clinical trials. For example, the effectiveness of an agent to affect marker expression can be monitored in clinical trials of subjects receiving treatment for breast cancer. In a preferred embodiment, the present invention provides a method for

10 monitoring the effectiveness of treatment of a subject with an agent (*e.g.*, an agonist, antagonist, peptidomimetic, protein, peptide, nucleic acid, small molecule, or other drug candidate) comprising the steps of (i) obtaining a pre-administration sample from a subject prior to administration of the agent; (ii) detecting the level of expression of one or more selected markers of the invention in the pre-administration sample; (iii)

15 obtaining one or more post-administration samples from the subject; (iv) detecting the level of expression of the marker(s) in the post-administration samples; (v) comparing the level of expression of the marker(s) in the pre-administration sample with the level of expression of the marker(s) in the post-administration sample or samples; and (vi) altering the administration of the agent to the subject accordingly. For example,

20 increased administration of the agent can be desirable to increase expression of the marker(s) to higher levels than detected, *i.e.*, to increase the effectiveness of the agent. Alternatively, decreased administration of the agent can be desirable to decrease expression of the marker(s) to lower levels than detected, *i.e.*, to decrease the effectiveness of the agent.

25

D. Surrogate Markers

The markers of the invention may serve as surrogate markers for one or more disorders or disease states or for conditions leading up to disease states, and in particular, breast cancer. As used herein, a "surrogate marker" is an objective

30 biochemical marker which correlates with the absence or presence of a disease or disorder, or with the progression of a disease or disorder (*e.g.*, with the presence or absence of a tumor). The presence or quantity of such markers is independent of the

disease. Therefore, these markers may serve to indicate whether a particular course of treatment is effective in lessening a disease state or disorder. Surrogate markers are of particular use when the presence or extent of a disease state or disorder is difficult to assess through standard methodologies (e.g., early stage tumors), or when an assessment
5 of disease progression is desired before a potentially dangerous clinical endpoint is reached (e.g., an assessment of cardiovascular disease may be made using cholesterol levels as a surrogate marker, and an analysis of HIV infection may be made using HIV RNA levels as a surrogate marker, well in advance of the undesirable clinical outcomes of myocardial infarction or fully-developed AIDS). Examples of the use of surrogate
10 markers in the art include: Koomen *et al.* (2000) *J. Mass. Spectrom.* 35: 258-264; and James (1994) *AIDS Treatment News Archive* 209.

The markers of the invention are also useful as pharmacodynamic markers. As used herein, a "pharmacodynamic marker" is an objective biochemical marker which correlates specifically with drug effects. The presence or quantity of a
15 pharmacodynamic marker is not related to the disease state or disorder for which the drug is being administered; therefore, the presence or quantity of the marker is indicative of the presence or activity of the drug in a subject. For example, a pharmacodynamic marker may be indicative of the concentration of the drug in a biological tissue, in that the marker is either expressed or transcribed or not expressed or
20 transcribed in that tissue in relationship to the level of the drug. In this fashion, the distribution or uptake of the drug may be monitored by the pharmacodynamic marker. Similarly, the presence or quantity of the pharmacodynamic marker may be related to the presence or quantity of the metabolic product of a drug, such that the presence or quantity of the marker is indicative of the relative breakdown rate of the drug *in vivo*.
25 Pharmacodynamic markers are of particular use in increasing the sensitivity of detection of drug effects, particularly when the drug is administered in low doses. Since even a small amount of a drug may be sufficient to activate multiple rounds of marker transcription or expression, the amplified marker may be in a quantity which is more readily detectable than the drug itself. Also, the marker may be more easily detected
30 due to the nature of the marker itself; for example, using the methods described herein, antibodies may be employed in an immune-based detection system for a protein marker, or marker-specific radiolabeled probes may be used to detect a mRNA marker.

Furthermore, the use of a pharmacodynamic marker may offer mechanism-based prediction of risk due to drug treatment beyond the range of possible direct observations. Examples of the use of pharmacodynamic markers in the art include: Matsuda *et al.* US 6,033,862; Hattis *et al.* (1991) *Env. Health Perspect.* 90: 229-238; 5 Schentag (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S21-S24; and Nicolau (1999) *Am. J. Health-Syst. Pharm.* 56 Suppl. 3: S16-S20.

The markers of the invention are also useful as pharmacogenomic markers. As used herein, a "pharmacogenomic marker" is an objective biochemical marker which correlates with a specific clinical drug response or susceptibility in a subject (see, e.g., 10 McLeod *et al.* (1999) *Eur. J. Cancer* 35(12): 1650-1652). The presence or quantity of the pharmacogenomic marker is related to the predicted response of the subject to a specific drug or class of drugs prior to administration of the drug. By assessing the presence or quantity of one or more pharmacogenomic markers in a subject, a drug therapy which is most appropriate for the subject, or which is predicted to have a greater 15 degree of success, may be selected. For example, based on the presence or quantity of RNA or protein for specific tumor markers in a subject, a drug or course of treatment may be selected that is optimized for the treatment of the specific tumor likely to be present in the subject. Similarly, the presence or absence of a specific sequence mutation in marker DNA may correlate with drug response. The use of 20 pharmacogenomic markers therefore permits the application of the most appropriate treatment for each subject without having to administer the therapy.

VII. Experimental Protocol

25 A. Subtracted Libraries and Transcript Profiling

Subtracted libraries are generated using a PCR based method that allows the isolation of clones expressed at higher levels in one population of mRNA (tester) compared to another population (driver). Both tester and driver mRNA populations are converted into cDNA by reverse transcription, and then PCR amplified using the 30 SMART PCR kit from Clontech. Tester and driver cDNAs are then hybridized using the PCR-Select cDNA subtraction kit from Clontech. This technique results in both subtraction and normalization, which is an equalization of copy number of low-

abundance and high-abundance sequences. After generation of the subtractive libraries, a group of 96 or more clones from each library is tested to confirm differential expression by reverse Southern hybridization.

5 B. Proteomics

Proteins that are secreted by normal and transformed cells in culture are analyzed to identify those proteins that are likely to be secreted by cancerous cells into body fluids. Supernatants are isolated and MWT-CO filters are used to simplify the mixture of proteins. The proteins are then digested with trypsin. The tryptic peptides are loaded
10 onto a microcapillary HPLC column where they are separated, and eluted directly into an ion trap mass spectrometer, through a custom-made electrospray ionization source. Throughout the gradient, sequence data is acquired through fragmentation of the four most intense ions (peptides) that elute off the column, while dynamically excluding those that have already been fragmented. In this way, approximately 2000 scans worth
15 of sequence data are obtained, corresponding to approximately 50 to 200 different proteins in the sample. These data are searched against databases using correlation analysis tools, such as MS-Tag, to identify the proteins in the supernatants.

In addition, protein profiling experiments are undertaken to assess whether the proteins associated with the expression of individual markers of the invention are
20 secreted. Transcriptional profiling experiments are performed on fractions of RNA that are obtained from either (a) endoplasmic reticulum-associated (ER-associated) ribosomes, or (b) free ribosomes. Eukaryotic RNA which is isolated from ER-associated ribosomes tends to encode secreted and membrane bound proteins rather than intracellular proteins. Accordingly, markers of the invention which exhibit significantly
25 enhanced expression in fractions of RNA from ER-associated ribosomes (in comparison with RNA from free ribosomes) are predicted to be associated with secreted proteins.

VIII. Summary Of The Data Provided In The Tables

Table 1 shows 4068 novel nucleotide sequences identified through subtracted
30 library experiments. The sequences of Table 1 were reinterpreted and those sequences are set forth in Tables 3 and 5. These sequences were determined to be novel through various BLAST searches of the available databases.

The library source for SEQ ID NOS: 1-675 was breast cancer cell cultures (ascites and pleural fluid cultures) versus normal (*i.e.*, non-cancerous) human epithelial mammary cell lines (HMEC). SEQ ID NOS: 1-470 are preferred and SEQ ID NOS: 1-315 are most preferred.

- 5 The library source for SEQ ID NOS: 676-1644 was cancer tissue samples (clinical invasive lobular carcinomas (ILC)) versus normal breast tissue samples. SEQ ID NOS: 676-890 and 1056-1363 are preferred and SEQ ID NOS: 676-792 and 1056-1254 are most preferred.

- 10 The library source for SEQ ID NOS: 1645-2941 was cancer tissue samples (clinical invasive ductal carcinomas (IDC)) versus normal breast tissue samples. SEQ ID NOS: 1645-2454 are preferred and SEQ ID NOS: 1645-2124 are most preferred.

The library source for SEQ ID NOS: 2942-4068 was cancer tissue samples (clinical ductal carcinomas in situ (DCIS)) versus normal breast tissue samples. SEQ ID NOS: 2942-3626 are preferred and SEQ ID NOS: 2942-3351 are most preferred.

- 15 Table 2 shows 4843 novel nucleotide sequences identified through subtracted library experiments. The sequences of Table 2 were reinterpreted and those sequences are set forth in Tables 4 and 5. These sequences were determined to be novel through various BLAST searches of the available databases.

- 20 The tester source for SEQ ID NOS: 1-64, 1960-1976 and 3038-3080 was aggressive breast tumor cell lines and the driver source was indolent breast tumor cell lines (detects markers upregulated in more aggressive tumors).

The tester source for SEQ ID NOS: 65-72, 1879, 1977-2004 and 3081-3127 was indolent breast tumor cell lines and the driver source was aggressive breast tumor cell lines (detects markers upregulated in more indolent tumors).

- 25 The tester source for SEQ ID NOS: 73-629, 1880-1894, 2005-2296 and 3128-3471 was poor clinical outcome breast tumors and the driver source was good clinical outcome breast tumors (detects markers upregulated in more aggressive tumors). "Poor clinical outcome" is defined as the patient suffering disease recurrence following surgery within a period of less than five years. "Good clinical outcome" is defined as
30 the patient remaining disease free for at least five years or more following surgery.

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The tester source for SEQ ID NOS: 630-862, 1895-1900, 2297-2385 and 3472-3602 was good clinical outcome breast tumors and the driver source was poor clinical outcome breast tumors (detects markers upregulated in more indolent tumors).

5 The tester source for SEQ ID NOS: 863-1262, 1901-1910, 2386-2567 and 3602-3988 was breast tumor lymph node metastasis and the driver source was indolent (colloid and tubular) breast tumor samples (detects markers upregulated in more aggressive tumors).

10 The tester source for SEQ ID NOS: 1263-1392, 1911-1916, 2568-2735 and 3989-4319 was indolent (colloid and tubular) breast tumor samples and the driver source was breast tumor lymph node metastasis (detects markers upregulated in more indolent tumors).

15 The tester source for SEQ ID NOS: 1393-1638, 1917-1943, 2736-2940 and 4320-4604 was T1N1 breast tumors (tumors 2.0 cm or less in greatest dimension with regional lymph node metastasis) and the driver source was T1N0 breast tumors (tumors 2.0 cm or less in greatest dimension with no regional lymph node metastasis), good clinical outcome (detects markers upregulated in more aggressive tumors).

The tester source for SEQ ID NOS: 1639-1878, 1944-1959, 2941-3037 and 4605-4843 was T1N0 breast tumors with good clinical outcome and the driver source was T1N1 breast tumors (detects markers upregulated in more indolent tumors).

20 Table 6 shows novel nucleotide sequences shown to be associated with breast cancer.

The contents of all references, patents, published patent applications, and database records cited throughout this application are hereby incorporated by reference.

25 Other Embodiments

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific embodiments of the invention described herein. Such equivalents are intended to be encompassed by the following claims.

What is claimed is:

Claims

- 5
1. An isolated nucleic acid molecule selected from the group consisting of:
- a) a nucleic acid molecule comprising a nucleotide sequence which is at least 90% homologous to a nucleotide sequence of Tables 1-6, or a complement thereof;
- 10 b) a nucleic acid molecule comprising a fragment of a nucleic acid comprising a nucleotide sequence of Tables 1-6, or a complement thereof; and
- c) a nucleic acid molecule comprising a nucleotide sequence of Tables 1-6, or a complement thereof.
- 15 2. A vector which contains a nucleic acid molecule of claim 1.
3. A host cell which contains a nucleic acid molecule of claim 1.
4. An isolated polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide sequence which is at least 90% homologous to a nucleic acid comprising a nucleotide sequence of Tables 1-6.
- 20 5. An antibody which selectively binds to a polypeptide of claim 4.
- 25 6. A method for producing a polypeptide comprising culturing the host cell of claim 3 under conditions in which the nucleic acid molecule is expressed.

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7. A method for detecting the presence of a polypeptide of claim 4 in a sample comprising:

- a) contacting the sample with a compound which selectively binds to the polypeptide; and
- 5 b) determining whether the compound binds to the polypeptide in the sample to thereby detect the presence of a polypeptide of claim 4 in the sample.

8. A kit comprising a compound which selectively binds to the polypeptide of claim 4.

10

9. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample comprising:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- 15 b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample to thereby detect the presence of a nucleic acid molecule of claim 1 in the sample.

10. The method of claim 9, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

20

11. The method of claim 9, wherein the sample is isolated from breast tissue.

12. The method of claim 9, wherein the sample is a tumor sample.

25

13. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1.

14. A method of assessing whether a patient is afflicted with breast cancer, the method comprising comparing:

a) the level of expression of a marker in a patient sample, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6, and

5 b) the normal level of expression of the marker in a control non-breast cancer sample,

wherein a significant difference between the level of expression of the marker in the patient sample and the normal level is an indication that the patient is afflicted with breast cancer.

10

15. The method of claim 14, wherein the marker corresponds to a secreted protein.

16. The method of claim 14, wherein the marker corresponds to a transcribed
15 polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

17. The method of claim 14, wherein the sample comprises cells obtained from the patient.

20 18. The method of claim 17, wherein the sample is a breast tissue.

19. The method of claim 17, wherein the cells are in a fluid selected from the group consisting of blood fluid, lymph, ascitic fluid, cystic fluid, urine, a breast exudate and a nipple aspirate.

25

20. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a protein corresponding to the marker.

30 21. The method of claim 15, wherein the presence of the protein is detected using a reagent which specifically binds with the protein.

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22. The method of claim 21, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

23. The method of claim 14, wherein the level of expression of the marker in
5 the sample is assessed by detecting the presence in the sample of a transcribed polynucleotide or portion thereof, wherein the transcribed polynucleotide comprises the marker.

24. The method of claim 23, wherein the transcribed polynucleotide is an
10 mRNA.

25. The method of claim 23, wherein the transcribed polynucleotide is a cDNA.

15 26. The method of claim 23, wherein the step of detecting further comprises amplifying the transcribed polynucleotide.

27. The method of claim 14, wherein the level of expression of the marker in the sample is assessed by detecting the presence in the sample of a transcribed
20 polynucleotide which anneals with the marker or anneals with a portion of a polynucleotide wherein the polynucleotide comprises the marker, under stringent hybridization conditions.

28. The method of claim 14, wherein the level of expression of the marker in
25 the sample differs from the normal level of expression of the marker in a patient not afflicted with breast cancer by a factor of at least about 2.

29. The method of claim 14, wherein the level of expression of the marker in the sample differs from the normal level of expression of the marker in a patient not
30 afflicted with breast cancer by a factor of at least about 5.

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30. The method of claim 14, comprising comparing:
- a) the level of expression in the sample of each of a plurality of markers independently selected from the markers listed in Tables 1-6, and
 - b) the normal level of expression of each of the plurality of markers in samples of the same type obtained from control humans not afflicted with breast cancer, wherein the level of expression of more than one of the markers is significantly altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with breast cancer.
31. The method of claim 30, wherein the level of expression of each of the markers is significantly altered, relative to the corresponding normal levels of expression of the markers, is an indication that the patient is afflicted with breast cancer.
32. The method of claim 30, wherein the plurality comprises at least three of the markers.
33. The method of claim 30, wherein the plurality comprises at least five of the markers.
34. A method for monitoring the progression of breast cancer in a patient, the method comprising:
- a) detecting in a patient sample at a first point in time, the expression of a marker, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6;
 - b) repeating step a) at a subsequent point in time; and
 - c) comparing the level of expression detected in steps a) and b), and therefrom monitoring the progression of breast cancer in the patient.
35. The method of claim 34, wherein the marker corresponds to a secreted protein.

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36. The method of claim 34, wherein marker corresponds to a transcribed polynucleotide or portion thereof, wherein the polynucleotide comprises the marker.

37. The method of claim 34, wherein the sample comprises cells obtained
5 from the patient.

38. The method of claim 34, wherein the patient sample is a breast tissue.

39. The method of claim 34, wherein between the first point in time and the
10 subsequent point in time, the patient has undergone surgery to remove a tumor.

40. A method of assessing the efficacy of a test compound for inhibiting breast cancer in a patient, the method comprising comparing:

a) expression of a marker in a first sample obtained from the patient and
15 exposed to the test compound, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6, and

b) expression of the marker in a second sample obtained from the patient, wherein the sample is not exposed to the test compound,

wherein a significantly lower level of expression of the marker in the first
20 sample, relative to the second sample, is an indication that the test compound is efficacious for inhibiting breast cancer in the patient.

41. The method of claim 40, wherein the first and second samples are portions of a single sample obtained from the patient.

25

42. The method of claim 40, wherein the first and second samples are portions of pooled samples obtained from the patient.

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43. A method of assessing the efficacy of a therapy for inhibiting breast cancer in a patient, the method comprising comparing:

- a) expression of a marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, wherein the marker is
5 selected from the group consisting of the markers listed in Tables 1-6, and
- b) expression of the marker in a second sample obtained from the patient following provision of the portion of the therapy,
wherein a significantly lower level of expression of the marker in the
second sample, relative to the first sample, is an indication that the therapy is efficacious
10 for inhibiting breast cancer in the patient.

44. A method of selecting a composition for inhibiting breast cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- 15 b) separately exposing aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6; and
- d) selecting one of the test compositions which induces a lower level of
20 expression of the marker in the aliquot containing that test composition, relative to other test compositions.

45. A method of inhibiting breast cancer in a patient, the method comprising:

- a) obtaining a sample comprising cancer cells from the patient;
- 25 b) separately maintaining aliquots of the sample in the presence of a plurality of test compositions;
- c) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6; and
- d) administering to the patient at least one of the test compositions which
30 induces a lower level of expression of the marker in the aliquot containing that test composition, relative to other test compositions.

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46. A kit for assessing whether a patient is afflicted with breast cancer, the kit comprising reagents for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-6.
- 5 47. A kit for assessing the presence of breast cancer cells, the kit comprising a nucleic acid probe wherein the probe specifically binds with a transcribed polynucleotide corresponding to a marker selected from the group consisting of the markers listed in Tables 1-6.
- 10 48. A kit for assessing the suitability of each of a plurality of compounds for inhibiting breast cancer in a patient, the kit comprising:
- a) the plurality of compounds; and
 - b) a reagent for assessing expression of a marker selected from the group consisting of the markers listed in Tables 1-6.
- 15 49. A method of making an isolated hybridoma which produces an antibody useful for assessing whether a patient is afflicted with breast cancer, the method comprising:
- isolating a protein or protein fragment corresponding to a marker selected
 - 20 from the group consisting of the markers listed in Tables 1-6;
 - immunizing a mammal using the isolated protein or protein fragment;
 - isolating splenocytes from the immunized mammal;
 - fusing the isolated splenocytes with an immortalized cell line to form
 - hybridomas; and
 - 25 screening individual hybridomas for production of an antibody which specifically binds with the protein or protein fragment to isolate the hybridoma.
50. An antibody produced by a hybridoma made by the method of claim 49.

51. A kit for assessing the presence of human breast cancer cells, the kit comprising an antibody, wherein the antibody specifically binds with a protein corresponding to a marker selected from the group consisting of the markers listed in Tables 1-6.

5.

52. A method of assessing the breast cell carcinogenic potential of a test compound, the method comprising:

a) maintaining separate aliquots of breast cells in the presence and absence of the test compound; and

10 b) comparing expression of a marker in each of the aliquots, wherein the marker is selected from the group consisting of the markers listed in Tables 1-6,

wherein a significantly enhanced level of expression of the marker in the aliquot maintained in the presence of the test compound, relative to the aliquot maintained in the absence of the test compound, is an indication that the test compound

15 possesses human breast cell carcinogenic potential.

53. A kit for assessing the breast cell carcinogenic potential of a test compound, the kit comprising breast cells and a reagent for assessing expression of a marker, wherein the marker is selected from the group consisting of the markers listed in

20 Tables 1-6.

54. A method of treating a patient afflicted with breast cancer, the method comprising providing to cells of the patient an antisense oligonucleotide complementary to a polynucleotide corresponding to a marker selected from the markers listed in Tables

25 1-6.

55. A method of inhibiting breast cancer in a patient at risk for developing breast cancer, the method comprising inhibiting expression of a gene corresponding to a marker selected from the markers listed in Tables 1-6.

30

Table 1

Sequence 1

CCGCGGTGGCGGCCCGCCGGGCAGGTACACTATCCCTCATGACTCCTTAAGTGGNTC
ATCGTCTGCATCTTCGTGTGAACCAAGTGAAGTATTTCCAGCATCTTTCCGAAAATCTAC
CTACTGGATGAAGATGAGAAGAATCAAGCCAGCTGCTACTTCTNATGTCCAAGGGTCAGG
TGGAGTATCANCCAAGGGGAAAAGGAAACCCAGGCAGGAAGAAGATGAAGACTATNGAGA
ATTTCTNAGAANAAGCATAAGCTTTATGGGAGGAAGCAACGGCCTAAAACTCAGCCCAA
TCCCAAATCCCAGGCCCGTCGTATTGGAAGGAACCACAGTTTATGCAGCAGGCAGTTT
GGAGGAGCAATGGTACCTN

Sequence 2

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTCAAACCTCCAGATCTAA
ATATGTTTACTTTTCATGTGGATTCCGAACATCCCAATGTAGTGCTAAATTCATCCTATG
TTTGTGTGCAATGCAATTTTCTTACCAAAAGGTATGATGCACTTTCTGAGCATAATCTGA
AATATCACCCAGGAGAAGAGAATTTAAGTTGACTATGGTGAAACGTAATAACCAGACAA
TCTTTGAACAACAATAAATGATCTGACTTTTGATGGTAGTTTGTAAAGAGGAGAATG
CAGAGCAAGCAGAATCTACAGAAGTTTCTTCTCGGGAATATCTATCAGTAAAACCTTA
TCATGAAAATGATGAAAAATAAAGTGGAAAAATAACGGATTGCAGTTCATCATAACTCAG
TTGGGGACGTTTCTGAAGAGAAAGAGAATGAAATCAAACCAGACCGTGAAGAAATTGTAG
AAAATCCAAGTTCTTCAGCTTCTGAATCTAATACAAGTACCTGCC

Sequence 3

AGGTACCTGCCCATCCACTGCCTTTTCCATGTATCCTGGAAGTGAAGCATAGACCTCTTCC
CAGGCAGAGCTGACAGCAAGTAAAGGAGATCATAATCAGGGGACCAAACTTTGTCTA
AAGTGTGAATGTCACCTAAGGAGAAGCTGTGAGATCAGAAGGGTGGGGCAGAGGAGCAGA
CACCATGAGGGAGAGTCCCTGGGGGTACCTGCCCG

Sequence 4

CCGGGCAGGTGCTGATNTTNCNCGGTNAAGCCNCGGNGGACCCATNCCTGCGGNCACC
TTGACCGAANCCTGTGAGANCTCCTGAAATANAGGANCCAGCNNTTCTGNTANACAN
ANACNCTGGNGCCNTTGNNGCTGGNCTGNNTGAAANGCNCACNTGAACTNCGGATTACAG
NAANTNNTNNGGNTNATCNACNGTGGANGAAGCCANANNCCANNNTATNAGNNTNNTCAAN
CNNNTTNANGNAGATGTATGTATGGAGAGAACTGAGGCCTCCNNGCCAACAGCCAGCAC
TAACCTGGCAAGCATGTTTGAGAGCCACCTGGNGAAGTGGAGCCTTCAGCCCCANTTTAA
AGCCTTCANATGAGACTGCAAGTTCCTGGGCCACCATTCCTGGGACTGCAACTTTACAAA
GGAGCCTCCTAAANCCAAGAAGNCCCATGCCAGATGGGAATTCTTTGGGCCCCCAAGAA
AATTTGTGCCCACTTACATTTTTTGGGGAAAATTTATTNNTGCAAGCNCATTAAGATTT
ACCAATTACCACTTCACTTATTTTNTTTTTTNTGGAATGCCCATACTTAAAAAAA
AAAAAAAAAAAA

Sequence 5

GGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTGAAAAGGATGAAAAGGTGGTGT
CATGTTTTGGGGAGAATCTTACTTCTCAAATGGAAATTGCACTTTTTGTGAATCCTTTG
CATTTTTTTGGTAGTAAGCAGTTCATTGAGTATCAGGTCTCAAAGGAATGAGTTGGCCC
GGCTAGGGTGGGCCCTNTTGACCTAACTTCAGAGGGGGCCTTGGCTCAGTAGGTGTGAAT
CAGGGAAGCCACATTGTCTCAGGGTGTGTATGAAGCTGGGTGTGGGCGGATTCTCCC
ACACCTTCACACTGGCCTGCCTCCAACCTATACAAATCTCGGAGCGGTGCGTACCT

Sequence 6

CNAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTCACTGGAGCACTTGG
AAACAGAAAGAAATCAAAGGGCAGTCAGGACTCTCCAGCAGGCAGGGACCAAGTCAGAG
TCAGGATGAAGACAAAGCACCTGAGCAAGAAGCAATGGAAGAGATGCTTGTGACCCGAG
CTGATGGGGAAGGTTGAGGGCAACGCANAGACCCCACTGCCGACTTGCCAAGAAAACGTG
CAGGAAATGAGGGAAGGCTCCATTTTCTGAGAAAAGGGATGGAGGAACATAAGCAGCAT
CAAGCTCCAGCTACTGGCTCTTTGAGAATGTAGTCGGGACTTGCCCCAGTCACCCCTGCC
CTGAGAACTCA

Sequence 7

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGAAAGGATGAAAAGGTGGTGTG
ATGTTTTGGGGAGAATCTTACTTCTCAAATGGAAATTGCACTTTTNGCTGAATCCTTTGC
ATTTTTTTGGTAGTAAGCAGTTCATTGAGTATCAGGTCTCAAAGGAATGAGTTGGCCCCG
GCTAGGGTGGGCCCTCTTGACCTAACTTCAGAGGGGGCCTTGGCTCAGTAGGTGTGAATC
AGGGAAGCCACATTGTCTCAGGGTGTGTATGAAGCTGGGTGTGGGCGGATTCTCCA

Table 1

Sequence 8

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTATTTGTCACTTAAAGGT
TCTTCTGTAAACTGCTTCAGATTCTTTACTATTCAATTTTAAATNTTAATATCTGTA
AAGAACGTTAATATTCTCTTTATAATCAATCTTTCCAGTTAGCCTTAAAAATGTATTC
CCTACTTTTGCTTCAGGAGATCATTATTTGCAAATGCAAAGATTTTTACTTAGACTTTT
GAAATCACTCTTAGTAACCTTAACATTGTTTTAGGTATGAAATTGAAGGCTGTGAAGTG
ATTTGGGCCATTAAAGATAAAGCTATAGGGAATACTTTTCTTCGATGCAGGAGCAGCTTG
AATTCTTTGACTTCAAAGCTCATTGCTGGAATAAAGAGGGCTTAAATTTGCCCTTA
AAAGGAACCNNGGATTTTCCACCTGGANGGAAGGG

Sequence 9

GATGCAGAGTCGGAAGGGAGCAGACTGCCCTGCTGGTGAGGGAGGTGATTACCCAGGGCG
AGTGTGCAGCCACTCAATGGCAGGGATTCTTTTCTATTTCCAGCCGGGGTGGAAGAGAAC
CCCTTTGTCCCTCAGACAAGTGGCCCCAGTTGAGCCCAGCGCTGAAACCGCCAGTCATCC
GCCTCTGCAGGAAGTGGCCGCCCTGACACATAGCCCAGGGCTGGATTCTTGTGGAAGAGT
CAGTGGAGTGAGATGGTGATTGAAAAAGGAAGAAGGCCCTCCTCAGATCCAGGGCTTTA
ACCCAGCGCACTCCCCGATGTCTCACCCTTTGAGCTCCATGACTGCATTCCCACCTTCAA
GGTGACGGCACGGACGCTAACGGCCANTGACTTGCCAAAGGCCACCCAGTAATGCAGCA
GCTGAATTGGGGGCATTTAC

Sequence 10

CCGCGGTGGCGGCCGAGGTACATTTTGAAAAGCACAACTTGATTAAATTGCACTTA
ACACAATGAACCTTTAGTTTCCAACCAAGTTTTCATTCTCTGCAGACCCGGGCTTTCTTTT
TATAAAACTGCTTTCAAAGGCATAGAGACACCACACATGGTCCACAGTAAATTCAAAT
AGAGAGGTGCAATAGTTGCAGTGGTAAACACACAAAAAATACATTTTTTTGGACTAAA
ATCTGGTCACGGATAAAAGCATGTGCCTTTTCATTCTTCTCTGGGATGTTACAACAGCAA
CAGCTCTAAAAACAATTAAGTTACATGCATAATGCTAAAAGAATGTGAGCAATCCTNTAA
CCAGCTTTTAAGCCCATCTGCTTGATTTCTNTTTTTT

Sequence 11

CCGGGCAAGGTACACACCAGGGATTGGGGGCCCTGCAGCTTCTACGCCACGGGACATTTG
CTTCGGGACTGGAGTCTTGCTGTGGCGTGAGGCTGTGTCTGGCGCTGGGAGGAGGAC
TGTGTGGGGTCTGGGTTCCCCAGCCCTAATGACCCAGCTGGTTGAAGGCAGCAGATGAAA
GGAGACAAATGACCACGCAAAACCTGGGTGGCCTCATGAACAGGTGGCGGACAAGGGTGA
TCCCTGTTGAGCAAGGTCTGCACTGCGGTGGGTCCAAGGACTAAGCTGCCAGC

Sequence 12

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACCTTGGGA
TCAAATGGAATCTTGATTCACTAACCAATTTAAGATCTGACTTCTAATTTTAGGAACCTT
GGGTTATGAACGCTTCCATTTTATACCTGTGTCTAGTTAGTTTCTGCCTATCTATCCAAG
AAGCTTTTATCAAGGGTCCACCATGTGCCAGCCACTGAAGTAGATATAAATACAAGGATG
TGTAAGGTATGGATGATGGTATACGAAGTGTATCTTACTGGATTTGTCCGCTCTGTAA
AGATACGGTTCGAAAACTTTTTAAAGCCCTAGAGAGGGCTTTAAG

Sequence 13

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACCTTGGGATC
AAATGGAATCTTGATTCACTAACCAATTTAAGATCTGACTTCTAATTTTAGGAACCTTGG
GTTATGAACGCTTCCATTTTATACCTGTGTCTAGTTAGTTTCTGCCTATCTATCCAAGAA
GCTTTTATCAAGGGTCCACCATGTGCCAGCCACTGAAGTAGATATAAATACAAGGATGTG
TAAGGTATGGATGATGGTATACGAAGTGTATCTTACTGGATTTGTCCGCTCTGTAAAG
ATACCGGTTCCGAAAACTTTTTAAAGCCCTAGAGAGGGCTTTAAG

Sequence 14

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATATGCCTGCTG
AAGTGTCTGACTTTAGGATGAGAACTCTAACATAGGCCGGAAGACAAATAAACCATAA
TCTGTAACAATGACTAAACAGACACTTGCCCACTGTGGTGGATTTGTATAACATCTCTT
CGCCAATTTATGAGCTGTTTTATTTCTGTTTAGTTCTTCTAGCCATGAGAGGTGGACT
CTTTGACCTGCCCG

Sequence 15

CGGCCGCCCGGGCNNGTACCAAAAGGNTNAANACCCANAGGGNAAACCCACCGCGGGNNG
AGCAACAAAGNAGGCACACANGGGGAAAGACCCANANACGGGGGGAANGCGGGAAAGC
CCCCGAGGAAGCACACACCCNANACAACACCAAAAAANACACACGGGCGAGAAGNCGAN

Table 1

GCCCAGAAANAGNGAGGGGAAAAAGANGCAGACGGAGCCCAACCCCCANGGAACAAAAAGA
 GGACCCANACCGGGGAAAGACCNAACCAGNNCAAAGAGGGGGGAAAAGGGNCAGGCAGC
 CNAGCAAACANAACCGCGNGCAGAGAAAGCACACCNGGAGACAAGCCCNACNAANGNGA
 AGAAAGGGGGAAAANGCCGCCAAGGAGAAAGCCAGGGCNGAAACNCACGAGAAAAACCAC
 ACCAGGGGGNNAAAGACCNANGCNANACAACGAAAACCAAAGGGAAAGGNNCGACCCAAA
 NGGGCCGGCCCGGNAACCANCAAGGGAAGGCCACCCCNAGGGNGAAAACCNAAAAAAG
 NGGAGGGAAAGGGGGGAAACCC

Sequence 16

AGGTGNGAATCAACGCAGGTCAAAATGAAATTTACACTGAAGGCTTCCAAACCAAAGGGA
 AGGACAGGATGTGTCATCAAATATGTTTNGTCACCTTGATTATACAAAANGCTATTTTC
 TAANGAGTCAGAGAAANTNTGTGAANCTTATTGTGCGGCCCCCTTGTAATNAAATGTTAA
 CTCCTTGTATTTAATTTTCAACACTACATTAAGAATTAAGTGGTTTNGGTTGNGGACA
 TAAGCANCACTTATTAATATCAAGGTGTTTAAGAACTCAGGAG

Sequence 17

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTNTGCTTCCAGTTTATATTTTCA
 TCCTGTTTCCAGCTTNATTAATATGCCATGGGTCAAAAACCTCAGTGCAATAAAATGTGTAT
 GAAAGAAACACCCTTCAGAAAAGATGAGACTCTTTCAAGTGAAATACTCTAACTAATA
 TAAGTCAAAATATATTTTTGTGCCAGNGATTTTTTAAAAATTACCCAGTCAACCATTTC
 CTCAATAATTCAAATACTCAAGTGTCCATTATATTTTTGGAATAAGCGAGAGTGATCGT
 AGTACCTGCCCG

Sequence 18

CNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGATTGTGTGCAAAATCACGAG
 GGGGGTGCAAGATCCTGATTTTTNAGGAGTTCAAGCGACAATGGCAGNCCAATACGGCAG
 TATGAGCTTNAACCCACGACACCAGGGGCCAGTTATGGGCCTGGAAGGCAAGAGCCAG
 AAATCCCAATTGAGAATTGTGTTAGTGGGTAAAACCGGAGCAGGAAAAAGTGAACAGG
 AAACAGCATCCTTGCCGGAAGGTGTTTCATTCTGGCACTGCAGCAAAATCCATTACCAA
 GAAGTGTGAGAAACGCAGCAGNTNATGGAAGGAAACAGAACTTGT

Sequence 19

CCGCGGTGGCGGCCGAGGTACCTCACGCGCATAAATTTGCTGCTCCTATTTTTTTTTCTG
 TTTATGTGTTTTTATGGATCTAAGTTAAATCTTTTGGCAATATATAAAAATGTAAATAGT
 AAACTTTATTTATTAAGAATGTCATCTTTTTTAATTTATATTTACACAATTGTTTCATCTA
 ATTTATTTTTTCTATACAGTTTAAATACTCAGACATATTTTGTGTTTCATGATATTTTT
 ATCCTGTTCTCATGGATTTGTTTTCCCATACTGTTTTCTCTGATCTCAATTACAGGTTGG
 ATCTCAGAAATAAATATGTCAGAGACAGAAATATTTTGCCACTGTTGATTACTATACTTT
 AAAGTTCTATATTATGAAAATATATAATAGCTTGACCTGCCCG

Sequence 20

CTAAGTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCCGGGCAGGTACGCTTTCC
 GTGTGTGATGCTGGTGAACAGTCAGATTTATTTATATTTTTTTGCAAGCATTGAATAAT
 CTAAGTTTTAAATATTATTTATCCCCATCCGTTTCGTATTTATATTAAGAATTCTGTACC
 T

Sequence 21

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAAGA
 ATAAGGTTTCAGAGCTGAATTGGCTTGGTGTCTAATTCCTATTCCAGTATTCTCAGAAG
 GATCCCATCTATGATATATGCAGAAATCACAGCCACATTTGAATGGTTCAATCTTGATTC
 ATACTGAACTCCCTTAAGCCCAGCAGTTTCTCATTCTTAAAGGTAGGTTATTAGAGCCC
 CAAAGCAATTTTCATAACAAATCTACCTTTGTATATTTAAGAATATGCATTAAGGCTAGG
 AGTGGTGGCTCACGCCAGTAATCCTAGCACTTTGGGAGGCCGAGGTGGGCAGATCACAAG
 GTCAGATTGAGACCATNCTGGCCAACACGGTGAAACCCCATCTCTACTAAAAATACAAAA
 ATTTGCCCGGGGCGGTGGCTCACGCCTATAATCCCAGCACTTTTGGGAGG

Sequence 22

CCGCGGTGGCGGCCGAGGTACTCTATGTCCCTCCCAGTTGCAACAATGTTGTTTCCAGCC
 TGGTTTCAGCAGCTTGCTGGTGGTTTACTAGGCAGACATGAGCCAGAAACAAAATCAGCAA
 CCCTGGAGTGGTCATTTAGGATCAGTTTGTCTCCTTTTACAAAGCAATGAGTGCTTTAT
 AAAAGCATTTCTCCTCAGGAACTGGCTCCTCAAAAGTCGTTCTCCAAGCCAGCAGCTCA
 CAGTAGATGGATGAGTTTACCTGTCCTAATAACTTTTTATTATAATACTTTTATTACT
 GATACTTTATTATAATACTTTTATTACTGATACTGATACCTAGTAATACTTTTATTAGAT

Table 1

GAAATGTATCCCCAGGCCTCCACATCAGCCTTCTGGGGCCCTGACAGGTGTTTACCAGTA
GCTNCACAACCTTCACAGGCTTGTTCTCTCATCCCTGTGAGGGAAGGTTCAAAGGCAAC
T

Sequence 23

CCGCGGTGGCGGCCGCGCGGGCAGGTACTCGCTCAAATTAAGTTTTTTTAAAGGTCTGT
AATTTGAAAGGAAAACAATTTTTCACTAAAAATATCCTTATTACATGAAAGCCATAATTT
AAAAGACAGAGAAAAAAGCTTTTAATTAACAAATAAACAGCATCTCTCAGAGACACTTG
GGAATGTTTGTTTTAATCAGTGGGTCTTAAAAATCACTGCTTCCACCTGCAAAACGAACA
CGAATCCACTGTGGATGGCGTCCTCTGACCCACCCTGAAGGGTTCTGTTTCTCTCCACAC
ACTTCTTTTCTGCAACTTTCAGCAAAGCAGGTTTGAAGAAAGAGGATTACAAAGAACT
ACGACTGGCTCCCTAGTGAATAACTTAACACGGTAAACCCGGTTTTCCATTTACATT

Sequence 24

CCGCGGTGGCGGCCGAGGTACCTACTATGTGTACGCCATGGGGGATACAAAGATCTATA
AGGCACAAGACCCTCAGTCTTGAGTCGCCTGACAGCCAGCCAGCTACAACATAATGTGG
AAAGGACAATGGTGGAATGCACTCAGGTCTTCTAATGCACAGAGTATGCTCAGGCTG
TGACATCAGGAAGAAAACAGATATTTACCTTAACACGGACTTGAGGACCTTCAAAAAAC
AGTGATGGGAGGAAATCCAGTTTTTAAAGTCTTGATTTAAAAAAAAGAAAACACTTTCTG
TGGATAAGATAGGCTGCAGGAAATGTACCTATGAAATTTTCTCAAATTAGCTTTCAA
CACACACAAAAAATGCATTTGGTTGAGGAGCAGAATGTAACCTATATTAAAGAATAAAC
TACTATTTAGTATCTGAGTGAAGTACCTGCCCCG

Sequence 25

CGAATTGTTGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACAATAAAGTTCACCCACCC
TGCACTTTNGCCCTTAGATCAATCCTAAGTAGCCATTGCCAGTAGGCCAAGTTTAAATCAG
AGGACAGTGCCTACCAGTAAATACTGAATAGTTACAATAGTTATGTCCATCCAACAGTA
GCAGATGAACAGCTAATACATCATGATGCTCTCCTAACAGGGTCCCCCTCAGATCC
TCAGTGAGCACATAAAGAAAGGGAGGTATATCCCTTACATCTCTACCAGGTATTAACAC
CTAACTACTCTCTAGCCAGAGGCAATTCCTTTATTTCTTACTCTCGTCTGCTTCTCTT
TAGCCCAATCTCCTGACAATAGTTAAACAAAAAGACCCCCAAAATATCTCTTGCTAAAA
CAG

Sequence 26

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTACAAG
CTAAGAAATGTAACAGTATCAACCCTCCAGTTGCTTAATTATACCCATAGGTAATACAA
AAAGCTCTGAAGACCCAAAGATGACATTACTAATGATGTGATTTTCAAGAGCCACAGAAGA
ACCTTACCAGCTTCCCTCAAATCAGTCCTTATCCTCTTCTATCTTCACTCCCATCATCA
TCTATTTTCACTATCCAGCTAAGCAAAGATTCTTGAGGGCTGACTTGATCTTCAGAC
TCACAGAGTGAATTCAGCTNTTCTGAATCAAGACCCACCCAGTN

Sequence 27

ACGCTACTATAGGGCGAATTGNNGCTCCCCGCGGTGGCGGCCGCGCGGGCAGGTTTTTTT
TTTTTTTTTTTTTTTGGAGAAACAGGGTCTCACTATGTTGCCAGGCTGGTCTCAAAT
CTTGGCCTCAAACAATCCTNCTGCCTCGGCCTGCCAAAGTGGTAGGATTATAGTCATGAG
CCACTGCGTCCAGCTAGAAATAGCAATTTTCTAACACATATATTTTATTGGTTTATGTA
TGAATTTAGAAATATCAAAGTGGCATGAACAGGTTCAAGATCCAACAAAAGGGAATCTTGA
TTCTGCCTCACCTAATAAAAGCAGAAGTGCGTGCGGCNCNCTAAAA

Sequence 28

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGAAGAGGTTCTGTGGA
AAAGGAATATGCTTAATAACTTCGAAAAAAAATACCCATAAATGGACAAGGGTGTGGGC
CCCCTTTCTGGGTGGATTCAAGGGTAGTCAGATATTCCAGGTTAACTGAACCTGATGCA
TCAATCTCCTTCTTGAGGTGTCTCAGTGTGCCAGACACTGAATCCACCTTAGACATCTA
TTGCCATTAGCCAGCAACAAACACACATTACACTCCTCTGTGCAACCTTTCTTTGCT
CATCTTGGTGAGAAAACACATCCAAGAGTACCTGCCCCG

Sequence 29

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGAAGGCACTGAAT
AAATTCACAAAGGCCGATTGGTTACCCATTCTTTAGAGACAACAGACACGCAATTCTG
ACGAGGACTCCTGTTACTAAAAGACACAGCCTCTGATACAAGAGAGATATCCCTTTGACT
GAAGCATTACAGGGTCCCCAGGGCCCCCTCCCACTGGGGCGGTAACACTACGGGTCTCC
CCACCATATATTCCATGTCAAAGTATCTACACAAATACAGAGGAAATTAAGCAAGTAAAT

Table 1

ACGGTATGTAATTGTTATCATTTGTATTTCTTTAAGGCATATTTATAAATATTTTAAAGT
AAACAATATGAGGTGAGTGCCTTTTCATTAGCTATGATCTTTCATACTGATATATTTTGAC
TGGATCTGAATAAGGCAGGTTTACTGGNGGGAGCATATTAACATAAAACAGCTTATATGA
TTTCAGGTGGGTACCTGCC

Sequence 30
TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAACAGGGAC
ATAATTTCTCTTTGGCTGTTATACATTTCTTTTAAAAAGCAAGTGATTGGTAGGAATTT
GGCAAAAGTTGAATAAGTTACAAGAACAGGCTTTTATTCATTTGCTATTTGGTTTTATG
TTTCTTGTTTACTTCGTTTGATTTGTTTCTCAAACTCACTCAGTGGGATTACCTGTCTG
TCATGTAGCAGCTTTTAAAAAACTGGACTGTGCAGCGTGGTCTGAGTGCAGTCTTTAT
AAAGCCCAGNGCTGNACCT

Sequence 31
ATACGACTATTTAGGGCNAATTCCAGCTCCCCGCGNGGCGGTNGCCCGGGCAGGTTNCT
NACGCGCATANTTTTGGCGCTCCTATTTTTTTTTCTGTTTANGTGTTTTATGGATCTAA
GNCAATCTTTTGGCAATATATAAAATGTAAATAGTAACTTTATTTATTAAGAATGTC
ATCTTTTTTAATTTATATTTACACAATTGTTTCATCTAATTTATTTTTCTATACAGTTTT
AAATACTCAGACATATTTTGCTGTTTCATGATATTTTTATCCTGTTCTCATGGATTGTTT
TCCCATACTGNTTCTCTGATCTCAATTACAGGGTGGGATCTCACAAATAATAATGGCAG
AGACAGAAATATT

Sequence 32
CTATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCCATTGCATC
ATGAAGTTTGGGCATATCAACATTTTGACTCATTGCGGAAATCATACGCATTAAGTTG
AAGCTTTCTACGATTTGGTGGGGGAAGTAACAAACAACATANCTGTANAGCATCNATGGC
AACCCTCTCTAAATGAGGTTGCAGCAAGCTTTGTGTGCCAGTCAACATAGAAGAAGCTGG
AAGTAAAGAAATTTCTGAAAGTTCTATTGTACCTTGGCCGCCCGGGCAGGTACGGAGGTG
AACTGAAAGAGACTGCTTCCATTGGCCTAGTCCAGATGAGTGTATATATTTCCCATCAGAA
CCCACCACTGGTCATCTTTAAGGCATNCACAAAATGTCCCTCACAAATTCACCTAATCTC
T

Sequence 33
TCGAGGTACCTAAGTCAAAAGGCACTGNTTGGAGATGGCACACTCATTTTCATGCGTGT
AAAATNTTAAATCATCCACTTTGCAGGCAGTGGCTTTGATAACTCACTGCAGTGTCAAG
GGGTTTATAAACTGGTTATAAGCTTCAAACCCATGTTTAGAAAAATTGACACTCATAGA
AAAAATGCTTTCTCTGGGCTAATTAATTAATAAAATTTGAAATGTAAACCGAGAAGTA
TGGCTCACAAAGCTATAGAAAAGATCCTTCATATCATCCCTGGCCCTAGCACCGTGAGTA
GATGTTCAACCCTGATAAGGCCAGGCGGAGGTGGCCCATGTGAAATCTTTGGCTTTGAGC
TAATTG

Sequence 34
CCGGGCAGGTACTAACATGATGATAGGTTTTCAAATATCTTTGTAGTGGATGCTGCATA
ATTACATTCACCTCTCTTAGACTGTAAAGACTTTCTTGACTTGTTTAACAGTAGAGAT
AGCAGTACCT

Sequence 35
TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAGTGCCCTTTTCA
GACAGTTTTTGATTGCTCTAGACTTTTTTTTTTAAATAGGGAAAAATTTGATAATTT
CTTTTTCTACATGCACCTTAAGACTAAACACAGGTTTGGATTAATTTATTTGCTTCCT
TTTTCCGCTTTTCTTCCCGCAGAGCCTGATGGGAGAAATGTCCAGGGCAGGGAAACCACAT
TTTTGTAGGTGATAACTCAATGAAATTTGGTGCTTATTTTTTACACTTCTCTTGTGG
CTCTCTTGTGGGGCTATCTATCTGTTTTAAGGTCTCCTTGAAGGCGCACTGGGG

Sequence 36
CCGGGCAGGTTTTTTTTTTTTTTTTTINTCAGGGNTTGAACACNTTTTTAATTATTAG
AAATCCATACATGCATATAATTAACCTCTAAATTTATTTTTAAAAATAAATTATGGNCA
TGAAAGAACAATAGNGCTTAANAATTTNAAATTTNCATANACATGTAATTTTTATTCCC
TAAAAATGAAATAAGATGAAACCTTTATGGGTANATTAATGGGATNTTTTA

Sequence 37
AAGGGCGAATGGAAGTCCACCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTTCTTTT
TTTGGAGAGAACTCCATTTTATTATGGAAAGNTAAAAACAAACAAANCAAAACAGGCAA
TTGATAAAGGCGGCACAATNGNNAAGGAGAGGTTGAGGTGTCTCCTTAGCCACCCGACAC

[illegible]

Table 1

AGTATTTTCTGATGCCACAAGCTTACTAAGAAAATTACTTCTAAAAATTGGTNATATAAA
TCATCAATGGATTACCTACTTTAAAAAGAGGGGTATCTGGNTTCTCTTACATTTAA
TAACCTGAAAAATGGAGGTCTATAAAATATTTTTAAAAAATACAGNGACNCCTGNTGGA
GGTTTTGGTAGGGCCCCCTGGTTTTTTNAAN

Sequence 46

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACAGCACTAGAAT
AATGCTGTGTCTCCTGTTACACATACTCATGGTCTCTCTACTCTCCCTTCATCACACC
TGTGACATCTTGCAATTTATATTTGATTGTGTCAATTATCTAATGTATTCTCTCTGGACTC
TAAGCTCCAAATGAACAAATGCTTTGTCTACTTTGCCATAACTGNGTCCCCAGTGCTTGG
CATGGGACCTGGTGCAGAGTAAATACATCATAAATATTTTGTGAATGAATGAATGAATGA
ATGACCATGATTAAATAAAAGGATATAGCTGCTCAGTCTGGTGCTGATAATGTTGGTAGTG
ATCAAAAGGGTTNAACACAGGTCATTAATGAAAACAGCTAACTTAGTGCTTACAGGAA
CCATACACTCCCTGTGTATAAACATGCCGGTGTGTGTCTCTNGGT

Sequence 47

GCCCCGCGGCCCGGGCAGGTNCAAAAGAACAGCATAAAAANCCANAAANTTNGAAGCNA
ACAAGGANNNNGCAANGGGCCGGGAAAAGTAAANAAACAGCGGCCCGCGCACANCGGNNNA
NACAAGACAAGGAANNNAACAACCCCAANCCCCACACGGAGAAGGAGAGCCNAAAAAGGA
AAAGNCGCCAGNCAANGGAAGCCCCGAGGNNAGGAANGAAACCAACANGAGACCACCGC
AAAAGAGAAAACCNANGNGGGCAANGCAAACCGNGAAAAGANGGGNCCCGNCCAAAAAAA
ANAANNNNNNCCCCCTGGCNGNAGGGGANGAAAAANATGGGCATATAGCCCAGAGCCACNAAG
AAGAAAAAACANCCCCACCCCAANAAANCNAAGGGAGGCCCAACNGAAGGCCAAAGGGG
GNCCCAAGGGAAAAAAAANGGANGAAAGAGCCCCCNNGGGANCCAGGGAANGGGNAAAAA
AGGGGGGAGGAGGGNGGAAAAAAACCAGGGANACCCNAAAAACCGGCNAAAGGGCCCCGNC
ACCCCAAGCNNAAGGAACCCNACCGGAANGGGGGGGNG

Sequence 48

CCGCGGTGGCGGCCGAGGTACAAGAGAACAATTAATAATTGAAAAATTGATTTCACTTAG
AAAACTTCTAGGAACAGGGTGAACCACTGATTTTAATTTGCCTAATTATCTTATGACAA
GTATCAAATTAAGATGACACTTAAAGATCCTTAGCATTAACCTAATGATGGAGAAGAGTG
CTCAACAGACAGTTCAGTAAGGTAAATGAGATGCCATTTTCAGAGACATTCTAAGAAGA
TATTTTGATTCATTAAACATTAAATAAAAAGCCCTCCTCAGATTGGAACCCCCAAATCG
ATGGAGCCACATTAATAATACTTTTCATGCCTCACTTTGACATGACAGGCATTTNGATT
TTTTAAAGATCTTTAATACTTT

Sequence 49

CGCNGGCGGCCCGCCCGGGCAGGTNCGAGAAAAGAGCTAGGGTAGGCAACTTAACTTACA
CAGTGCCAGTCTCAGGAGGTCACTAGCTCACAGAACTCAACAGATAAACTGGATTAAAAAC
TTAAAAGTCTTCTTTCTATTTGAGCCATAATGACTATTTTGAACATGGCTCTTTTGCTG
CTGCCTATATATAAATTTTTATTAATTTTCTTGATTGGGAAGATCTTGAATACGCTCC
AGGATGAGAAGAAAAAATACGCTGACACTGCTAAATCGGGTATATGTTTTTGCAATAAAG
AACACTGGTCAATATACAACCTGAGGAAAACTGAAACAGATGTGAGTCCTANAACCACAA
GAGTTTGAATTTGCCAGAAATGCTATTTTAAACACTCTATATGTTGGCTGCTGTTTTT
GGGGAATAATGCATTCTTGGCATCCTTAAAGGTTTCAATATGTTACAAAGGTTATCCCG
GAAAGAGAAAAAGC

Sequence 50

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCTGTCTTCTGGACCAG
TCAGTCTATGAGCTCTTCTTTGAAACAGTCTTAGACCCAGAATGGTCATCTCACCCCCAG
AAGACATGGTTTCCAAGGGTGGGAGGTGTTAGTTATGGGTGCCGAGCCCCACTTCTGGG
CGACAAGGCAAAGGTCAATTTCTCCCTGCTTCAAGAATGAAGAGGGAACCTGGTGCTCCTT
GAACCAAAGATTCTTGGAAGGGTCATTGTCAACCAAAGTGGCTGGTGTGGGCAGGAGCACC
AAGTGACAGACAAACCCACCGGGGCTGGCGGGGCGAGCCCTGTATGGTTTCTGTCTTTGT
TCCTGTTAGTGAAACAGAAAGACCCCCGACCCCCGCCACCTAGCAGCATGGAACACCTGCT
GCCAGATACAGACAAGGCTCTGCTTTGTCTCCTTGTGCTGGTTTTTGGCAGAAACGTTA
AAGGGGCTGAAGGCCTGTGGGACAGAA

Sequence 51

GCTCCCCGCGGTGGCGGCCGAGGTACTCATNATAGTTACATCCCTATATAAAAAGTATGT
TTACATTTAAAAAATTAGTAGATAACTTCTTTCTTTCAAGTGACAAATTTCAATTTTGAC
TTGAGTCAACTTTTGTTTTGAACAAATTAAGTAAGGGAGCTGCCCAATCCTGTCTGATA

Table 1

TTTCTTGAGGCTGCCCTCTATCATTTTATCTTTCCCATGGGCAGAGATGTTGTAAGTGGG
ATTCTTAATATCACCATTCTTGGGACTGGTATACATAAGGCAGCCGTGAACTGGAAAGT
CATTTTGATGACTGATGTGATACATCCAGAGGTAAAATGCATTTAAACATATTAAGGAT
TTGCCAAAGATCAATTTTCTTGCTGACATAAAAAATCACACAAACCAGTCCCCCCCCAAACC
ACAACTGNCTCTCAAATAGCTTAAAAAAATTGGAAAACATTTTAAGGATTTTCAAGGTT
TCTAGATTTTNAAGGATGGTCAGCTTTTAGAGGNATGGTNAAAAATTTT
Sequence 52
TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGAATTTACTTGAC
CATTCCCCTTATTTTCATCTAGAGGAATCTCGGATTCAGCCCTTTCATTGCTAAGACAC
CTTTTCACTGAGGTTCTTACCAGCTCAGCCAAATCTCCACTCTGCTATAGCAGAAGCAAT
AATGTTTGCTTTAAAAAGATTTCTTGACCNATGCCTTTTNTTANAAAGGGGGGGTAGATTA
TTTTGAACCTTNCATCATCANANCAGNCCCCNAAANGGGGGGGGTTGGGGGGGGGATTTTT
TTTNTGGGGNNGNNNTTTTTTTTNNCCNCCCCCCCCCNNTTTTTTAAGGTTTTGNGG
GGGGGGGGNAAAGGGGNATTTTTTTTTTTTTTTTTNNNCNCCNNGGNAAAAAGNNNNNNAN
TTTTTTTTTTTTNTTNGGGGGGGGGGGGGGGGGGGGGG
Sequence 53
AAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCCCATGTGGAATCTGTG
AGTGTCCTCTTAAGTAGCGTGGGCTAGCCAATCTGCCGTTTCATGGTGTATTGTAACTCC
GAATTCATATGTAATAGGATGCAAGTCTAAGCGTTTCATGTGGACATAAATGTATCTAA
ATAAACTTTCCCTAGCACTGTGGCTGACCTCACCTTACTTTTATACTTTAGTATGAAA
CTGATGAGAACTTTGGTAGTGAGTATTTTTTTATATATATACATATATGTACCTGCC
CGGGCGGCCGCTCTAGAAGTACG
Sequence 54
TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCACGCGCATAAATTTGC
TGCTCCTATTTTTTTCTGTTTATGTGTTTTATGGATCTAAGTTAAATCTTTTGGCAAT
ATATAAAATGTAAATAGTAACTTTATTTATTAAGAATGTCATCTTTTTTAATTTATAT
TTACACAATTGTTTCATCTAATTTATTTTTCTATACAGTTTTAAATACTCAGACATATTT
TGCTGTTTCATGATATTTTTATCCTGTTCTCATGGATTTGTTTTCCCATCTGTTTTCTCT
GATCTCAATTACAGGTTGGATCTCACAAATAATGTCAGAGACAGAAATATTTTGCCA
CTGTTGATTACTATACTTTAAAGTTCTATATTATGAAAATATATAATAGCTTGTACCTGC
CCG
Sequence 55
CCGCGGTGGCGGCCCGCCCGGGCAGGTACAACATATATACATGTGCATATATATGTAAAT
TTATATTTATATATAATATCTTTATATAGATATCTGCAGACAGGTTATTGATTATA
GAGACCCAAGAAAGCAACTCAATAATTGTTCAAAGTTTTCTCACTGACTGCTGGTGTGT
AGTTTAAGAAGCCCCCATTTGTTTGCCTCAGAATGCCTTATCTCTTTTAATGGAACAC
TTGATGTGGAATTTAAGTCTGAGAAGTGAGGTGCCTTCTGAAGAAGAGATTTTAGAGAC
TCCCTTCTCTATAAGTTGGAAATGACCAAGAAGTCTTTAAGTAGACGACAGTTAGCTGA
CTTTGACATTGTAGGGACGTAATCAGCTTTTAACCAAATTATAGAAGTGGTAAAGGGTAA
AGATCAAATTTGCCAAAAAA
Sequence 56
TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGAAGAAAAGAGCTAGGGT
AGGCAACTAAAACCTTACACAGTGCCAGTCTCAGGAAGTCAGTAGCTCACAGAAGTCAACA
GATAAACTGGATTAAAACCTTAAAGTCTTCTTTCTATTTGAGCCCATAAAGACTATTTTG
AACATGGCTCTTTTGCTGCTGCCTATATATAAATTTTTTATTAATTTTCTTGATTGGGA
AGATCTTGAATACNCTCCAGGATGAGAAGAAAAATACCCTGACACTGCTTAATCGGGTA
TATGTTTTTGCCATAAAAAACCTGGNNCATATACCACTGGGGGAAAACCTNGAACCCATNT
GGGGTCTTTNAAACNCCAAAGGTTTTAAATTTCCCCCAAANNCTNTTTTTTNAACCCCT
TTTTGTGGGGGCGGCGGTTTTTTTTTGGG
Sequence 57
ACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACCCCGTTCTGCCTGAGCA
TTTTTCTAAAGGGAAGAATCAATAGTTTCTGACTGTTTTAACAGCTGAAAGCTCCAAC
TGGAGGCAGAAGATGGGATGGCTTTTACACACAGTGCCTGCAAGTTTAGCCACCTCCAAA
GGCCTTGTTCTTAAAGCA
Sequence 58
CCGCGGTGGCGGCCGAGGTACTGGGAAAATTTATAGAAATCATCTAGTCTTACCCTTCAT

Table 1

TATTCACGGAATATGGTGGACTATCACCTCATCATGGACATGATCCCGGCCATCTCTCGC
ATCTATTTCTGAACCAGCTGGGGGACCTGGCCCTGTCTGCGGCTCAGTCGGCTCTTCTC
TTGGGGATTGGCCTGCAGCATAAGTCTGTGGACCAGCTGGAAAAGGAGATTGAGCTGCC
TCGGGCCAGTTGATGGGGACTTTTCAACCCGGATCATCCGCAAAGTTGTGAAGCTATTTA
ATGAAGTTCAGGAAAAGGCCATTGAGGAGCAGAATGGTGGCAGCGAAGGATTGTTGTCA
TGGGAGCCACGATGAAAGACCCTCAGTGACGACCTAANATGAAGCAGCAAAG
Sequence 74
GGGCNCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAT
AGATCCTGATCTACTGGCAGAGCTCAGCGAAGAACAGAAACAGATCCTGTTCTTCAAGAT
GAGAGAGGAACAGATCCGACGATGGAAAGAAAAGAGAAGCAGCTATGGAAAGAAAGGAGTC
CCTGCCAGTGAAACCCAGACCAAAGAAAGAGAATGGGCAAATCGGTTCAATTGGAACTTG
GAGCTGATAAG
Sequence 75
TTAGGGCGAATTGGAGCTCCCCGCGGNGCGGCCGCCCGGCCCGGTACTTTGNTTCTNTT
GGGNAGCNTAANACAGNAACCCCTCAAGGAGCTAGAGAACCGGATGGGAGACATGAGCAGT
AATTAACCTCACTTGTTCCCCAGAGTNTCTATTTGGANNTGATTTTCTTTTCTGNGACTN
ATTTTCTATTTTCTTCTCCTCATGTAATTTTCACTATGGCCCACTAATATAAACACCT
GGAAATTACAAGGAAAAAAATTTCTTCTCTAATAACTNTCCAAATTTGNGGAATATTTA
TTTGTAAANACAGTTATCAAGGTATGCTTATATAGCAT
Sequence 76
GNGGGCGGCCGCCCGGCCAGGTNCAGCGTGGTCAAGGTAACAAGAAGAAAAAATGTGAG
TGGCATCCTGGGATGAGCAGGGGGACAGACCTGGACAGACACGTTGTCATTTGCTGCTGT
GGGTAGGAAAATGGGCGTAAAGGAGGAGAAACAGATACAAAATCTCCAACCTCAGTATTAA
GGTATTCTCATGCCTAGAATTTTTGGTANAAACAAGAATACCTTTCTNTGGCAAATAACT
AACCNTGGNGGGACCAAATNTGGGATTTTAAAGTTGGGNTCCANGGAAATTTTTTT
TAAAAAGGCCTGTTTTTGGGANAAANAAANAAACCTTTTTTNTTANNAACNTTTT
AAAAAGNNGATTTTTTGGGGGGGGTTNCCNTTTTTNACCCNTTTNTNAAAAAAGGNA
GGGGGGTTTTTAAAAAANTTGGGGGGGGCCCCCCCCCGGGNGGGGGGGGGAANTTNNAAA
NCNAANTTTTTTNNCCCCCCCC
Sequence 77
GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTCTCTTTGA
AATCTCATAGGATAGTCACACTTATAAACATTCCCAATATTCGGATTCTAGAAGAAATGC
AATTCATTAAAAATTTCTGGCACTGAGAGTTAATCTTTAGCAGATTGCATGAAAATACT
GAATTCCTGGTAAGGAGATATTTTGTTTTAAAAATAATGTGTTTTGATACGAATCAGTGT
ATTAACGTATAACTAAAAAGTACCT
Sequence 78
CCGGGCAGGTACGTTGAACGTTTATTACAACCTAATTGGCGATGTGATAAGACAGTGCTCA
CGTGGCCTGAATGTTGGTCACAATCACAACAAAGCTTAATCCAGCCCAGCATATATAAGT
GAAAATATAAACCATGAAGACATGTTAGATATGTATAAGTACCT
Sequence 79
CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTGCGTTCTCTTGG
TCTTATTTCCCATCCTGGCCAATGCTTAAATACTATTTGTTGAAAATAATTCTTTGAGACA
GATTCAGCTACCTCCCTTCCAGGTTGATTTAACTTGGTTGTAATTGTCAATTTGTTGT
TATAGGTCTTACCTGTGTGAAAGAAAGAAAAAGAAAGAAAGAAAGAGAAAGGAAAT
TATAAGGTCAAGTTAACAGTTTTGAGGTTTTGTGTTTTTCTGGAACACTTCAAGTGA
GAAAATAAAAAAATGGTGACAAAGCTGTACCT
Sequence 80
NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTGAAA
AGGAAGGAAAATATTTTATTAAGTTTTTAAAGTTTATGAATNGAAGTCTATGAAAAC
AAACTACTTGATACAAAAACATTACAGATATTAGATGTCAAAATAAATCAGCACATTTGAA
AATACTATAAATTATATTTCAAACAAATATATACACATTATGTTAACCTTCAACAGGATC
CATTATCACTACTTAGAACACTGATATGTTTATCTTTTAAAGTATGTAAAAATTACATAGC
TGTTAACTTTGTATGGCAATTCACCTATAACACATTTAAGAAAGCATTACAAAATTCATT
ATATAAATTCTCAAAAGTTTTCTCACATT
Sequence 81
GGTACTTTAACTTTTGAAGGTGGTTTCTGGTTCCCCCAATCGGTGAGCCCAAAGACCTCA

Table 1

ATAACATTTTATTACACAGACTTCTTAGAGATGAAAAGTTTCTAGAGAGCAGAGCCTT
TAGGGAACTAGGGGATGATGCATTCAGTGAATAATCACAGTATTACTCAAGAGCAAA
TACGTTTTCTTTCTTATTGGTGTCATCTTCTTGTGAAATACGGCAACTGATGAAGAAG
TCTCCTATTGAGAATAACCAGACGAAATCACAAGGCTAGACAAGCAGCTACTAACCCAT
CCCCCTCCCCCTGCCCATGGTAAACCCTGCTGGCAAATGTATTTCTCCCTCCTAAACCTG
GGAGGACTCACGTTTCTGCACCCAGAGCCCCAGGGGGAAGTAAACAATGGGGAGTGAGCC
GATGAGGTGGGAT

Sequence 82

CCGCGGTGGCGGCCGCGGGCAGGTACTGTTCTTATAAAAGATTCTTTCTCCAGAATT
ATATCTCCTCAGAGCAACAGCAAGGTTCTCAGGATCGAAGCCTACTCTAGCCTGAAGGGC
TAGGAAGATTAGGATAAGGATAAGGATAATAATCCAAAAGTCTCGACAATTCCAGTAGTC
TCTGGATGGCTCCAACATCATAGAAATTTAACACTGTTCCACTTGTTTACAAAATCTAAC
ACTGGCTTAGACATTCTGGACTTTTCACTGAGGGTCCAGCATCTGATGTCCTCAACTCC
TTTCCAGGGTGAGAGGCCCACTTACAGGAACTTAACCTTCTCACCATGTGGACCCTGAGG
GGTTTTCTCTTGCAGAAGGGCTAAAAAGTGAGGAAGCTATGGAAAATGGTGGGTCTAC
TTTTAAGGCAGACTGTTTGGGTGTGTGGGAATTTTCTAACCTAAGTTCTACCATCTT
GGGATTATTC

Sequence 83

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACCCTGTGCGTA
GGTGGAGCGGTTGAAGCAAGGTGGGTGTGAAGCCCCGAGAGTGGTGCTTTGGTCCGACTG
GCACACTCCGGGCAGCTGGGAGAGTGACAGGGAGGCTGAGAAGGGGCCCCGCTGGATCCCC
CAGCTGGCGCGCACATAGTGCTGCTGCCCTGCTTAGGACAGTTCTCTTTGCATCCGTGA
GGAGCCAAGACAAGTCACAAGTGCAAGTGAGGGGGTTGCCAAAGAGGTTGATCGATAGGA
CCTGGGAGGAATCCAGGGTCCAAGGAGGGAAGGAAGTCAAGTTGCAGTTCTGGAACAGAA
GGACCTATAGATGTGGAGTATCTTGAAAGATGTGTGTGGCGACAGAAAGCAAGTGCTGGGG
GAGTCTTGACAGTCCAGCTGTTGCAGGTGGGGGGTCTCTTGAAAAATGTCCCCCTCAGG
GGTCGTCAAGCCGAGGCATNTTCACCTNGGNCCGCTTTAAACTAAGTNGGATCCCCCCC

Sequence 84

CCGCGGTGGCGGCCGCGGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTG
GAAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCT
TCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCT
ACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCT

Sequence 85

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACTCTTTGA
GGACATTTTTGTCAGATTAACATAACAGTGAGTGAGTTTTTAAATTCAGTTGAAA
AGTTTTAGCTGCTTGGAAAGTCAAATTTATCCAATTGTTTCACTTCTGTTACTACTTAAT
ATGAAGCCACCATGCTGGCTTGGACAGAATTAATTTCAATCATGTTATGGAGAATTCAT
ATTACAAATCTGGTCCCCTATAATATGAACAGTGAGCAGTCAGAAATATACAAAGGGTTA
AATAGGGTAAAGACTTTGGCCAAGAAAGGAAAGGCCCTAGTTCTACCATAGAGTATCTTC
TCTAATTTAAATGACTGGGAAATATATGGAAGCAGAAACCAGCACAAAGCACTACCCATC
TAGAAATAATTTTTAGTTAAAAACAACCTCTCAAACCAAGCACTCATTTCTCTAAGATA
GGGTTATAAGTATTTTACGATTTCTTGGTATATTAAAA

Sequence 86

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCAGCCAGCTCCCACC
ACTCACGGCCTTCATCCTGCCTTCGGGAGGCAAGATCAGCTCGGCGCTGCATTTCTGCCG
GGCCGTGTGCCGCCGGGCCGAGAGACGTGTGGTGCTCTTGTCAGATGGGAGAGACCGA
TGCGAACGTGGCCAAGTTCTTAAACAGACTCAGTGACTATCTCTTACGCTAGCCAGATA
TGCAGCCATGAAGGAGGGGAATCAAGAGAAAAATACAAAGAAAAATGACCCAT

Sequence 87

CCGCGGTGGCGGCCGAGGTACAGAAGAGGTTCTGTGAAAAGGAATATGCTTAATAACTTC
GAAAAAATACCCATAAATGGACAAGGGTGTGGGCCCTTTCTGGGTGGATTCAGGGG
TAGTCAGATATTCAGGTTAAACTGAACCTGATGCATCAATCTCTTCTTGAGGTGTCT
CAGTTGCCAGACACTGAATCCACCTTAGACATCTATTGCCATTGAGCCAGCAACAAACA
CACATTACACTCCTCTGTGCAAACCTTTCTTTGCTCATCTTGGTGAGAAAACACATCCA
AGAGTACCTGCCCGGGCGGCCGCTCTAGAACTAG

Table 1

Sequence 88

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGAAAAAGGAT
TGGAAATTGTGTTTAGTTTTGGTGTGTTAGATTATTTCTTTGTGTCTTCTTTCTTTCT
TTTTTTTTCTTTTTACAATAGGCCAGTAGAATTCTTATGAGAAACAAGCTTTTAAGC
ACTTCAATGGAGTGTCATTTTTTGGTAGCTTCCAGAAGGTGCCAAACAGGTTTCAACAT
CATATTAATTAGAAATACCCATAATAATTATAACAATAATAAAAAGGTATAATATGGTAC
CT

Sequence 89

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTTGCACGTGCAATTA
AGGATCTAGCTGCTGACATTGAAGAAGAGCTTGTGTTGACTGAAAATTTGCGATGGGT
TTTCACTGCAACTAGATGAATCAGCTGATGTTTCAGGACTTGCTGNGCTGCTTGTGTTTG
TTCGTTATAGGTTTAATAAGTCTATTGAGGAAGACCTACTCCTGTGTGAATCTTTGCAAA
GTAATGCTACCGGTGAAGAAATATTCAACTGTATCAACAGTTTTATGCAGAAACATGAAA
TTGAATGGGAAAAATGTGTTTGATGTTTGTAGTGATGCTTCTAGGGCAGTGGATGGGAAA
ATTGCCGAAAGCTGTCACCTTAATAAAATATGTGGCTCCCGAAAGCACCAGTAGTCACTG
CCTATTATACAGACATGCCTGGGCAGTTAAATAATGCCTACATCTCTNAAAAATGTGCT
AGACCAGGCTTTCCTGTACCTGCCCGGGCGGGCGCTTAAACNAGGGGGGATCCCCNNGC

Sequence 90

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCGAACAATG
ACAGGGGAAGGGTATTGGACACGGCAGCGTCCTCCTTATTGAAAACACATTATGTCAGTT
GGGAATTTTAAATAAGCTTTTAGCAAACTAACACTAAAAGCAAATANAAGAAAGCTAT
ACCATACCATAATACATTTTTATCTCATGGCTACAATGGAATNTTGAAAAGGAAAA
AAAATCCTATCTACATATAAAAACCTGCATGAATGAATCACTACATATGCTTATAATGAG
GAAGAGTTATGGGTCCTGAGTGTAATTTTTATCCTTCTTAAAAAGTTTCTGTATTATG
CATTTTTGATAACACTCTGATGATCCTTCCCTTACATTGAAATGTTATGTACCCTNNGC
CGCTCTAGAACTAG

Sequence 91

CCGCGGTGGCGGCCGAGGTGGCTATTGAACCTTCTTTTCTTGTGTTGAAGTTAGCTTCAAA
TTTGTTCCTATCCAGAATATTTACAGGTAATTTAGCATAGGAGCAAATTACCTGTAAATA
TTCTGGATAGGAACTACTTGAAATAGTAATTTGTTAAAAGATATGACAAAATGAAAATGC
TTAAACTACAGAAATTTAAAAATGCCATAACAATCTTGCGAGACTAATTTAAATATAC
TTAAATGATTATTATGATTTTGGTGGTAACGATCCCCACACACAACCACTATGAAGAA
ATAATGCCGCATTTTTCCCCCATG

Sequence 92

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTACA
TGGGTGTTTTGATCTCTGTTCTTTCACTACATTTGAACAGGGCAAATGAACTAACTG
CCATGTAGGCTAAGAAAGAAATGCTAACCTGTGGAAGTTGGTTTTGTTAAATTCATGG
ATCTTGCTGGAGAAGCATCCAAGGAACTTCATGCTTGATTTGACCACTGACAGCCTCCAC
CTTGAGCACTATTCTAAGGAGCAAATACCTTAGCTCCCTTGAGCTGGTTTTCTCTGATGG
CACTTTTGAGCTCCTAAGCTGCCAGCCTTCCCTTCTTTTCTGGGTGCTCAGGGCATGCT
TATTAGCAGCTGGGTGGTATTGGGAGTTGGCAGACAGGGGATGTTCAACTTAATGAAGA
AATACAGCTAAGGCCTTGCCAGCAACACTTGCCTAAGTTACTGGCTTGAGTGAGGGCTTA
AAAAATTNAAAGGGTACTGGGJTATCCTCTATCCCTTTTTCCCT

Sequence 93

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGATGGACGATACTGGCT
ACAGCGAGAAAGCAACCTTTGCCTCAGTGACATATCCTCGGGGCTATCCCTACAACGGGA
CAAATATGTGAATGTCACCATGCACCTCCGAAGTCCCATCACCAGGGCAGCTTACCTCT
TCATAGGGCCATCTATAGATGTTCAAGAGCTTCACTGTCCACGGAGACTCTCAGCAACTGG
ATGTGTTTCATAGCCACCAGCAAACATGCCTACGCCACATACCTGTGGACAGGTGAGGCCA
CAGGACAGTCTGCCTTTGCACAGGTCATTGCTGGATCGTCACAAAATCTGTTTGACCGG
AAT

Sequence 94

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGCTGAAATTGAGA
CTCTTCTCCCTTTTGAGCAGAGGTCATTTTCTCTTGACATTGAATTCAGTATTTGTGCA
GAAAAGAGGTGTCAATGAGGACTCCATGGATACTTTCAGTTGATCAGTATTGGCTCTGCT

GCAGGGTGATTTTGGCTTCACACATAAATGTTGCAGTGGCATTGTGCCAGGGGAAAGCCC
GCTTGGAGGCTGTAGGATGACCTGATGGAGGCTGTCACTCAAACAGCTCCAGGTAGTCA
GGCAGCTGGTCCTGCTGACCACAGGGATAGAGAAGGAGCTCCTTCCCCGGGGAAGTGATG
GGTT

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGAAACCCACCTCACC
CCGGCTCACATCTAAAGGGGCGGGGCCGTGGTCTGGTCTGACTTTGTGTTTTGTGCCC
TCCTGGGACCAGAATCTCTTTCGGAATGAATGTTTCATGGAAGGCTCCTCTGAGGGC
AAGAGACCTGTTTTAGTGCTGCATTGCAGATGAAAGACTCTTTTAAACCTGTGCTTGCAT
CCTCCTTTCTCCTCCTCCTCACAATCCATCTCTTCTTAAGTTGACAGTGACTATGTCAG
TCTAATCTCTTTGTTGCCAGGGTCTCTAAATTAATTCACTTAACCATGATGCAAATGTTT
TTCATTTTGTGAAGACCCCTCAGACTCTGGGAGAGGCTTGGTGTGGCAAGGACAAGCAG
GATAGTNGAGTGAGAAGGAGTTGGAAGGGNTTTA

CCGGCCAGGTACCTAACCTACCTTTAAGACTGGGATACTATTGGAAACAATAGCTAATA
CCGNTATAGTNATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTNACTTAA
AAATGGGGGTGCGGAACATTANTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGG
TTAGCCGGGGCCGAG

AGGTACAGCCTCTCGGCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCG

TATNCTGGAAGTGAAGCATAGACCTNTTCCAGGCAGAGCTGACAGCAAGTNAAGGAGATC
ATAATCATGGGGACCAACAACCTTTGNCATAAGTGTGAATGTNACCTAAGGAGAAGCTGT
GAGATCAGAAGGGNGGGGCAGAGGAGCAGACACCATGAGGGAGAGTCCTTGGGGGTACCT
GCCCGGN

GGGGAACACCCCCCNGNGGCGGCCGANGCCAANANCTTTTTGNGGGGGAGGNAAACCCCA
CCCCCCCAGACAAAAACNGNCACGNACCCNGGNNTTTTGAACANAGGGGGNGCCCCCCCC
ANAAAAANnn
nnnnTTANAAAATTTTTTTGAGGGGGGGGGGCNCCCCCGNAAAAAACANGGNCANAGAAG
NNCCCCCGNGNGAAAGGGGGANCCGNNCACAANNNCACACACACACGAGCCGGGAGCAN
AAA

GGNAAACCCCCCNGNGGCGGCCGCCCGGGCAGGNTCNCCTTAGGGGGGGGGNAAACCACC
CCCCCCCCNGNGCGAAAGNCNACCNNNGATGTTTTAGNTNCANGGGGGGAANCNCCCNG
NAAACGGGNGNGCAGGCNGNAANNNNCNNNCNNNANAAANNCGCAAANCNAAAGAACG
ATTTTCC

ACCGCGGNGGCGGCCGCCCGGGCAGGTACTTTTGTNGGNTGGGGAAAAACNCTTTAACA
AGCTTAGATTTATTATNGCGCCTTTTATGGAAGATGAGGAAGAAATAGGAAAGCAGTAA
ATGAACAATGAGAATCTGTTACCCAACTGATATAAACTCCCTCAGAAAGAAAGATACTA
CTCCCTAATCTNTNGAAGAGGGNAGNGGCAATAATGATCAAAATGCCGNAAGGGGANTGN
CACTACAGCTAATAC

AGGTACAAGGGATTTTAACCNTTNNNCANAAANCCANNNGTGAATGCTTNGCCATACTT
GCTTTAAGGTGTTATGGTNGGCACAGTTTACTGGCTTCGCCTGTTAAATTTACAAATGTC
CTGTTTGATACTACTTGTTAGAACACTATTTTTTAAATACAGAAAAAGCTNCCTATAAT
GGCAACTTTCAGAGAAATTTAAAAATNCACAGGAGGTATTTTATTTACCCAATGGCTT
GCCAGGGTTCCCTGGC

CCGGGACAGGTACAGTTGGATTGACTACAAAAAAATTAGGCCTTGTCCATTATCCAGA
GGTTTCCTTCAAAACTTTTAAAAAATTTATCACCTAAAATGGATTTTAAATTATCAGAA
TTTAGATGTAGCAATTAAGTAAATCTTAAAGGAGGTGTAGAAATTCCTTTAAGAAGTTATT.

Table 1

GTCTGCTTCCCATTCAGCAATGTCTGCAATACTACTTTTTTAAATGAGCCCAGAAACAA
TTCTCTGCAACTGTAAAAATTATGCCAGAAATGCAAGTTTTTGGTTAGTGCCATAGTTTCG
TTTTGTTATTGAAAATGGGATAAGTCATGATTTATCCCTCCCTTCTATGGAA

Sequence 104

AGGTACTTTTACCTTGAATCTACTAGAACTCTCTGCTATTCAAACAAAGAGCTCATACT
TGTTGGAGTAGGGAAAAAATTAGAAATTTGACCAAAAGATAGATTCAATCAACTACAAAG
TCAATCCCAAGATGCTGATAACATCGAAACTCTTGAAAAAGAACTATTAGAATCTGGAGT
TGAACTTTAATGGATCATATACCTGTTTTGCTTGATCAAGTGATTGATCAGCTTAATATT
AAAGAAGATGGTATCTATTTAGATCTTACTTTAGGACGTGGTGGTCATTGAGTCAAATT
TTAAAAAACTTACTAGTGGCAAGCTTATAGTCTTTGATAAAGACAAA

Sequence 105

AACCCACCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTGCCATGTCAGTNATGACTCC
AATTTCTGTGTGCAAGAGCAATCACACGGAAGCCCTGTTTAGTGAAGTCTTCCAAAACG
TTTTGAAAATCGACAGGAACTGTTTCAGGTTTACAGAGACCGGCAATGGCCTCGGGCGCT
CCTTTNATGTAGGCNTCCATTTTCTATCCCCCAGCACCCCTGGCAACCACACTCATACGT
TGCAAAGCAGAAGAAAATGGGAAGTGGCGAACAATTCCTATCTCATAAGTAGCTGGAAGT
TCAAACAGCTCCATTTCTGTTTCTGTCAGGGGTAGATTGAGGAAGCAGTTGTTTGGGA
GGACGAACCACTGTGGGCA

Sequence 106

CCGGGCAGGTAAAAACAATTAGTAGATACTAACTACTATTTATTCTTGCCGGTATGGG
CGGAGCAACAGGGACTGGAGCTTCACATATTTTGCAAAAGTAGCCAAAACCTCTGAAATC
TTTAAGTATAGCTATTGCTATCCAACCTTTTGATTTTGAAGATAGTAAAAGGCTTTCAAG
AGCTTCTGAAGGAATTAAAAACTACAAGAAAATTCAGACGCGCTAATTGTAGTTTCCAA
TTCTAAAATCGCGGAGCTATACAACGGCATAAGTATTTTCAAGTCTTTTACAAAAGCTAA
TCAAATTATTTTGATATTATTTAACTATTATTGATTTAATTAGTAAACAAGCT

Sequence 107

NNNAANCTCNCCCNCCAAACNNNNCCCGGNNNNNNNNNGGGGGGNTTTTNTTGGGGGGA
NGGGGNNNNNNCCCNNGNNNNNNNNNGGCCGCCCGGGCAGGTACATTCNCAAGGGTTGGAAC
CCAAGCCCCACCCTGGGTTTTCTTAAGTTCATTATTTCCCCCAGGCAATTCCTTGG
GAGTTCCCTTGCCAGAAGCCATCAGAGACAGCAGGCGAAAAGCAGGGCTTAAGTGAATNC
CATATTGGGG

Sequence 108

AGGTACATCCCGAAAAGACAGCAAAAAGAAGAAGCACCGAGCTGAAGATTACTCAGCAGGG
CACGGACCCGCTTGTTCTCGCCGTCAGAGCAAGGAACAGGCCGAGCAGTGGCTGAAGGT
GATCAAAGAAGCCTACAGTGGTTGTAGTGGCCCCGTGGATTGAGAGTGTCTCTCCACC
AAGCTCCCCGGTGACAAGGCAGAACTGGAGAAGAACTGTCTTCAGAGAGACCCAGCTC
AGATTGGGGAGGGTGTGTGGAAAATGGAATTACCACATGTAATGGAAAGGAGCAAGTGAA
GAGGAAGAAAAGTTCCAAATCAGAGGCCAAGGG

Sequence 109

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCG

Sequence 110

AGGTACCGACCGCTCCGAGATCTGTATGAGTTGGAGGCAGGCCAGTGTGAAGGTGTGGGA
GGAATCCGCCCACACCCAGCTTCATACAGCACCCCTGAGGACAATGTGGCTTCCCTGATTC
ACACCTACTGAGCCAAGGCCCCCTCTGAAGTTAGGTCAAGAGGGGCCACCCCTAGCCGGGC
CAACTCATTCTTTGAGGACCTGATACTCAATGAAGTGTCTTACTACCAAAAAATGCAAA
GGATTGAGCAAAAAGTGCAATTTCCATTTGAGAAGTAAGATTCTCCCCAAACATGACAC
CACCTTTTTCATCTTTTCACTACCTGCCCGGGCGGCCGCTCTAGAA

Sequence 111

CCGGGCAGGTACTACCATTTAGGAACTGCTATAACACATAATTTTATGAAGTAACACCT
AATACGGTGTAGTTCCCTGGTCATATTTTATACAATTCACCATATAAAAGGGTGTCACT
GTAATTTTCAAGTAGTGGGTTTACAAATAATCTGCTGGTTAGCTTATTACCTTGAAGTTT
TGAAAACTAGAATTATATTAGGCATTTTATAAACATATCTCTTGCAACCTCTCATGG
TGGAGTTAAGGATAACTTGCAGGTGGTTGGCCAAGGCCCAATATAGATGATTATAACATT

Table 1

TAGAATTGGCAATTAGAAGTTGATAATCCATATAGGACCATAGG

Sequence 112

AGGTACCCACCTCACATTCTTTAACACTTAAGGTTTTCTGGGTAGTAAGTGCAATACAT
TCTTATTATAAAACAATATGGACAGTTCAGTATGTATAAATGAGGATAAAATCAAAATCA
CCCACAATCTCACCACCTTTGTGATAATAACCATTAACTTCAATATTGATGAATTCCTTG
AATGTTTTATCTACAATATTTCTTTTCATATAGTTGATATCACTCTGTATGCACAACTTG
TATCCTTTTTCTAAATCTTAATATCATAATATTAGCATTTTCTAA1GTTAGTAGATGTAC
CTGCCCCG

Sequence 113

AGGTACTATGAGTTGCCACCATGTCATGCAACATAACATATTGCTTTCTAATGGAATATA
GTGAGCTTACGATTGATACTATGGACATAACCACAATAGCTAGAGCATAGTAATAGTATT
CATCAGTGCTCCACAGTATAACACTGAACAGCTGGAAAATGTAAATGGGTTGAGAACCT
CTTTAATTAGAAGCTTAAAAACAGAAGGCACCTTTACAGCAATTTCAATTTACTCCATAAA
GCAGTTTTCTGTAGGCATGCATCCCCCTTTGTCACTCTGCACTATGCTTTTCATAAATTG
ACGTACCTGCCCCG

Sequence 114

AGGTACTGCACTGGTCATTGATAAAGATGTATTCAAAGGCTCACTTAAAGACTTCGAATA
CAAGCTGATGGGAATCTGATTACTATTTTCACTGCTTGGAGCTGATCCAAATTCAGAGAG
AGAAGGTTCTGACCCAAATTCAGAGCCCCAACTGCACATTTAATCCTGTGACATCTGC
TGAACAGGCATTTCCACTGCAGAAGCTGGGATCTTAGAAGCTGGGGGTATCCGCCGCTT
AGCAAGTTTGATGTGTTTGGGCTGTGGCTGGTGACAGACACAGAGATATTTCAATGGT
CGTGCTGGGAAGCTGCAAAGCTTGTTTACAGTGAGGGGACTGTC

Sequence 115

CCGGGCAGGTACCTGGTTCTACAGATGGTTCTCATGCACAAAATTTTCAAGAACACATTGT
AGAAAAGTAAAGCAGTATGACATGCTTTGAAAATGCAGATAATTTAGTGCAACTGTATT
ACAGGTTACAGATAATAAGAGATGAATCTGAAAAGAAAAGAATGTTATGGTACCT

Sequence 116

AGGTTTTTTTTCACTNNCGTATTGTTTATGGAAGAAGAGATTAGAGGACAATACAAGTAG
CCACAGCTATGATGCATGGAATACTACAGAATATGGTGAAATGCTATGTAAGGGCTAGAA
ACAATTCATTAGGTGTACCTGCCCGGGCGGCCGCCCGNCAGGTACATGCAAATCGCCTG
TGGTAGCCATAGTCACAGGATGTGTCTTCAAGACAGAAAATTTGCTTTGTGGCCCTCAGCC
ACTCTCCTNTGGGTGTTGNCATCAAGCANGTCATAGAGNCTAACTCATCCATACTGTGG
NAATG

Sequence 117

CNCGGCAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAAACAATAGCTAATA
CCGGATATAGTTATTTATCGCATGTAGTAATAGAAAGGAGCTTCACAGCTTCACTTAA
AAATGGGGGTGCGGAACATTAGTTAGTTGGTNGGGTAANGGCCCTACCAAGACNATGATGT
TTAGCCGGGCCGAGAGGCTGTACCT

Sequence 118

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAACTTCCTTATTTACAA
ATTTAAGTTTGGTTTATATATTTTATTGACATGGTTACTCAATGTCCACATCATTCATC
TGCATCGTCTTCTACAAACAGTTTTTCTTCTACTATTCGGTTATTTCTCCTTTTTTGT
TTCCTATTTTCAAGATCAAATTTATTTTACTTGCAAAGTCAGTGGAATATGGTTTGAACC
AGTAGGGCCTCTAATTAAGCCCAGAACCTGTCAAAGAGAAGTGCAATATCATTGCTAAG
ACTTGAACAGTTTATCTCTCAGAATCTTCAGTTCTTTGAATTTCTCAGCTCTTAGTGTA
ATCTGTTTTATGTGTTTGTGNAGACTTCCATTATGGATAGATTNCCAAAATAANTTGGG
TAATCAACTGGTATTTTAGCATTCTGGGAACATAACATGTTTAAAAATCTAAGGCTCTTT
TCATGCCAAGGAGACTGATTTTGGCTT

Sequence 119

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGTAATATCATGAAGCTGC
TGTCTGCACTTGTCAATATCCTGTAAAGCCAGTAACAATAAAATTCAGCTTTTGGTTGAGC
CCGGCCTGGCTGCTGGGCTGGAAGTCACTGACGATGATGCCGAGCTGCCGAATGTTCTCC
ACGAACCTTCTCAGGTGCTCCTCTAGGTGGTCAAACCTCTCCGCCACCTGCCCCG

Sequence 120

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAAGAAATGCCAAGGA
CAAAGTTTTAAAGACTTTTATGTTTATACAGTAATGACTTGTATTATTAGTTTATTG

Table 1

AATAGACAATATGGCTCCTAGTCCTGGTCATATATTGAGAGTTTACGGTGGTGTGTTTGCC
 TTGGTCTGTTGCTTTGGACTGGCTCACAGAAAAGCCAGAAGTGTTCAACTAGCACTGAA
 AGCATTACAGGTATACTCTGAAACTAATGATTGATAAAGCAAGTTTAGGTCCAATAGAAGA
 CTTTAGAGAACTGATTAAGTACCTGCCCCG

Sequence 121

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGATGGGTCAATTTTCTTGATATTTTCTCT
 TGATTCCCCTCCITTCATGGCTGCATATCTGGCTAGCGTGAAGAGATAGTCACTGAGTCTG
 TTTAAGAACTTGGCCACGTTTCGCATCGGTCTCTCCCATCTGGACAAGAGGCACCACACGT
 CTCTCGGCCCGGCGGCACACGGCCCCGCGAGAAATGCAGCGCCGAGCTGATCTTGCTCCC
 GAAGGCAGGATGAAGGCCGTGAGTGGTGGGAGCTGGCTGGTGTACCT

Sequence 122

GAAATAAAAAATTAGCAAACAATTATTCTAGGGATATTTTCAAGATTTTACTTCATTTCTTG
 AAATGCGNGTGCCATATGCAATTGCATTTCTTGCGCAAGAACTAATAGAACTTATTTT
 ACTTTACCTTTTTTAAAAATGTGAATTTAGTTATTATAGTTTCAATTTTATGGCCTTACA
 GATGGCTTTTATTTTGTTCAGCNTGACACTGCAGTTCCTTTCATGCAAAATACCCATA
 AACTGTTTTGATGGAAAAATTCATTGCCCTTAATGGGAAAACCTCTCTAGTTTTTTCCC
 ATTATAAACTANTTCCCTACTGNTACCCTGCCCGGGGGCGGCGCNCGCTTTTCGACCCA
 AACCATTNGTNGGGTNGAAGCNATTTTCCCAACGGGNGCCGCCAATTGGAAANGTCCCTNG
 GGGTNGCCTTGGTGCCTTNCCGAAGTCNTNCTTGGNAAATAATTTTTTGGATANGGGAA
 AGCCGGACCANAGGGAAAAAAATTT

Sequence 123

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAAAGTT
 CACCCACCCTGCACTTTGGCCCTTAGATCAATCCTAAGTAGCCATTGCCAGTAGGCCAAG
 TTTAATCAGAGGACAGTGCCTACCAGTAAATACTGAATAGTTACAATAGTTATGTCCATC
 CAACCAAGTAGCAGATGAACAGCTAATACATCATGATGCTATGCTCTCCTAACAGGGTCCC
 CTCAGATCCTCAGTGAGCACATAAAGAAAGGGAGGTCAATCCCTTACATCTCTACCAGG
 TATTAACACCTAACTACTCTCTAGCCAGAGGCAATTCCTTTATTTCTTACTCTCGTCG
 TCTTCTCTTAGCCCAATCTCCTGACAATAGTTAAACAAAAAGACCCCAAAATATCTC
 TTGCTAAACAGAAGTAGTCCCTAACTCTCTCATCTTAGACTACTGTGAGGTACCTCGG
 CCGCTCTAGAACTAGGTGGATCCCCCG

Sequence 124

CCGGGCAGGTACAAAGCACTGGAATTGGGGAAATAGCAGGGTGTTCCTCCCAACAATTAGA
 AGCAGTGTGCTTTTCAATTTCTTTTACTGATTAGCACTAAGTAGACATTAACTATAT
 GAATTTTTCAAAACAGCATTAGGGTCCACATTTATTTAATTCTGATCTTCTCTAATC
 TAATTGGGTGAAACTTATGGTGAAAAAATATGCATAGTTACTTTTGACATAGATTGTTT
 AAGCATGAAAGCTAGGAATTGATTAACCAATACATAATTTAGTTTGTGTTACTTA
 GTTCTTTGTAATAGTGTGTAGAATCATGTGAATTACTG

Sequence 125

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAGTTTATTTTCTAG
 TTCAAAAATAATCTGTAATTGCTGTAAGAAATGTCAACCACTTACCTAGGATGTTTGACA
 ATTGGGATGAAGTCTACATATACTAAGNAATGGCAAGACAATTATTTTATTGCTCAAAAG
 AAAGTCAAAAAAATTCATATTCCTTTGGGGAAAATTTGGCAGGATTTCAAGTATGACCT
 TTAAGAATCAGGAAAAGACTAATCTTATGCTTTAGGATTAAACAAATCAATAATTAAAT
 AGTTCAATTTTCTAACATAGTCTCTATCTTCAGTTAAAGTGCATCATTGCATGTTATACA
 TTAATAAAATTACACAGTGCATAATTGTTACCATGTGACTATTTAATTCAGGGTCAACTG
 TCTAAAGGTCTCAGGTGTCACATTAAGGGTTATAATCTAGATGAATTGGAACAAGAAAGA
 AAAGATTTCT

Sequence 126

AGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTGCNCCGCCTGACCTGGGGCAAGT
 GCTTTCAACTCTCTGAACTTCGGTTCCTCATCTGCCAGTTGGCAGACGCTCAGCAATCT
 TCCTAGACTCACGGGGCGAATTGTACCTGCCCGGGCGGCGTTAGAACTAGTGGATCCCCG
 N

Sequence 127

CTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTCCCAACAGCATGTCCT
 TCCTGGTTCTCTACCCCCACAGCACTTCTTAGAGCAGAGGCAGAGCCAGAAAGCTGTGTG
 GGTCACAGGCAAGAGCTGAAGTAAGACCTGCAAGAGGCGGCAGGGAGCTAACTGTAGCAC

Table 1

GAGGACAAAAATGAACACGGTAATACTGAGGTAAATGAACACTCAATTCATGTGGAGGCT
GTAAACGTCCTGATGTCACCTCTGCCTCAAGAGCAGAAAAATGTGACTGGAGTGGTTACAG
GAGGGGCTGCCAGACCCCTGTGGGAATACTACATCTGGGACACCTCAATCAAGGAGGCA
AGAGAGAATTTCTGGCCACTGGCAAATGAAGCATACTGGCTTGACAGGGACCTTCTGATT
CAAGTACCTGCCCCGGGCGGCCGCTCTAAACTAGGT

Sequence 128

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCTTGCCGGAC
TTTCCCTTAAAGAAGGAGAGGATCAGAAAGAGATAAAGATTGAGCCAGCTCAGGCTGTGG
ATGAAGTGGAAACCTCTACCTGAAGACTATTATACAAGACCAGTAAATTTAACAGAGGTAA
CAACCCCTTCAGCAGCGTCTGTTACAGCCTGACTTCCAGCCAGTCTGTGCTTCACAGCTCT
ATCCTCGCCACAAACATCTTCTGATCAAACGGTCCCTGCGCTGCCGTAAATGTGAACATA
ATTTGAGCAAGCCAGAATTTAACCCAACGTCAATCAAATTCAAAATCCAGCTGGTTCGCTG
TCAATTATATCCAGAAGTGAGAATCATGTCAATTCCC

Sequence 129

CCGCGGTGGCGGCCGCCCGGGCAGGTACATAGATCCTGATCTACTGGCAGAGCTCAGCGA
AGAACAGAAACAGATCCTGTTCTTCAAGATGAGAGAGGAACAGATCCGACGATGGAAAGA
AAGAGAAGCAGCTATGGAAAGAAAGGAGTCCCTGCCAGTGAAACCCAGACCAAAGAAAGA
GAATGGCAAATCGGTTCAATTGGAACCTTGGAGCTGATAAGGAAGTCTGGGTATGGGTGAT
GGCGGAACACCATCTAGATAAACCCCTATGATGTGCTCTGTAATGAAATTATTGCTGAGAG
GGCTCGGCTGAAAGCAGAACAGGAGGCAGAAGAGGCCAGAAAACTCACTCTGAAGAATT
CACCAATAGCTTGAAAACAAAATCACAGTACCT

Sequence 130

CCGCGGTGGCGGCCGAGGTACATCATATGCCTGCTGAAGTGCTCTGACTTTAGGATGAGA
AACTCTAACATAGGCCGGAAGACAAATAAACCATAACTGTAACAATGACTAAACAGACA
CTTGGCCCACTGTGGTGGATTTGTATAACATCTCTTCGCCAATTTATGAGCTGTTTTAT
TTCTGTTTAGTTCTCTTAGCCATGAGAGGTGGACTCTTTGACCTGCCCG

Sequence 131

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGTGTTTGT
TCCTAATATTTTAAACCACCTTATACCAAATGTCTTGCAAAGAAATGTTATTAACCT
TGAATTTTACAAATGTAAAAACAAAAAGTGATTAATGTATTTGTTTCAGGAAAAGCTA
CATACCGAAGGGCTTTTGTATATGAATCTGTGGTGGGAGACCCATTTGTAATCTATAT
GGCAGTTCATCTGGGTTTTAAGTTTAGATTTACCCGTGTCTTANCTGCTTCATTCTATT
GGTTTATTGGAACATGTAATAAATAGGAGTAGTGATGTATTAACACANGNNTTCATTA
ATGNTTTATATCTTCACTAAAATCTATAGTTATGAAACTTTTATCAATCAAGGTGTTAT
ATTCAGTCAGAAGTGAAAA

Sequence 132

CTTAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTACCAAATA
GTTCAAAAGAGTTCTGTATTATCCTTAACATAGTGCTTTTTTTTCTTCCCCTTCTCTTG
GGGAAGCTACAAGACATAATCCTTCAGTGCTTAACTGGAAAGAACAGTCAATCCTAAATA
TTAAAGAATCTTATGCTGTTGAAAGTAAATGAAAAATTCGAGTTATTTGTGGCATATTT
GAGCAACCAATATTTATTGCATTTAATCAACTGACTTTAAAAAATTACAATCTTGTTACT
TTCATTAATTTAGCATGTGAAATTTAATTAGAAATACTGGGTACCTCGGCCGCTCTAGAA
CTAG

Sequence 133

ACTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACANGAAATATTTTGT
ATGTGTTGATTTTAAAAAAATCTGTAAATAAAGTTTTAAAAAAGAATTCAAATGGCAC
ACGCTGAAATATGTAGATATTTTGCTATTTTAAAGGAGTATTTAAGAGATATTGAA
CTATCTGAAATTGACCAGTAATCAAAGTTCCAATCATCTGAATGCTTTTCTTGAGGTAG
AATGTGAGTCTCAGAAATGACTGCATTACCTGCCCTTTTTTGACCTTTTCTGTCTTTT
ATTTTGCAGAACACAACAACAACAAATTTGTGCCTTAGCTGTATTTTTTGTCTAGGGG
GAGTTTGTCTGTCTGACCAAAAGCAACATTTTTTGACAGAAAACAGGNGGATGGTATTA
AATACTGGTATCATACCAAAAACCTGCCANGGTGGTATATAGGATGCTTTCTGTCTACT
GGTGGTTTTTCAGATGCAGAATTTT

Sequence 134

CCGCGGTGGCGGCCGCCCGGGCAGGTACAAAGCTTATTCACATTTTTACTAAATCCAACA
CAACTTTCACAAATGGCAAAATGATTGCCTCTTCAAAGCAATGCAGCCTAGTTTTTGGTG

Table 1

GGTTCTGGTCACTGCTTAGCTAAGTCTTTGTTGGGCAGAGTCCTGGCTCCACAGTCTCCT
TCGATGGGCTCCTCGATACACGAGGCTTCATAACATGCGCTCTTTGAAGAACCATTCTG
ATGATCCGAGTTGGTGCAGTCTCGTAAGAGTGGAAACGAACTGTCACTCGACTCCTTCCT
CGCAGCCTGGACACATTTCTTGGACTGTTCTGTGAAATAAAAGATCCATCCTCCTGCAAGA
TGAACCTCTGATTCTCTGGGGGCA

Sequence 135

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGCCTCTTTGAGTATGA
ATGAACCTTGAAGAATAAAGCCTTCCAGTTGGATGAAAGCACATCCAGCCTTTTGTGAGT
GACAGCTTTGTATATAATCTTATGCAGAGCTGATATGGATTCCCTCCAGGCAGCTCAAAT
CTGGAAGTTGTAAATGAATGGCTATGCCACCTTGGAGTATCACCATAATACATCTCTGCT
TTAGAGCTGATATACAGATGTGAAACGATCGAACAACATGATTTCTCATTCTAGTGCTCC
TTAGAAAGGAGTTCTGATAAGCCCCAAAGCAGACCTGGGTTGGAATCGTGTTATTATTC
AAGTACCTGCCCGGCGGCCGCTCTAGAACTGGTG

Sequence 136

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCGCAGGTACCGCTATATCCG
CCAGTTGATGACTGTCCATCTCTAGCCCTCTAACCATGCTATGCACCCAGTGAGTGCGAG
AATGATTACTAGTAATTGATGTTGACTTTACAATTCTATGACATGTAATACAGGATGCCG
AGGCACCTTTTAAATTCACCTAACATGTTCTGGCACTGGAAAACTTACTTGAGATTTT
AATACTGGTTAATATAGGAAAAATTATGCTTAAGCACCCTAACTTAAAGTGTAATTC
ATTTCTTGAATTTAGGTAAAGCAAAATCTCAAAATCTATTATGGCACATGTTTCA
CAGTTTCAACCT

Sequence 137

CCGCGGTGGCGGCCGAGGTACATACATACTCTAGTTATGAGCACCTAGGGTCTTTCCC
ATCACTCTTGCAAAAGTGTGTGTGNGTGTGTGTGTGTATACATACTCACACATACATA
TGTATACACAGACATCTATATNCANANATAATGTATATGTGNGTCTAATGTATATATAAT
ATATACACATAGACATACACACAATGCACATATCATAGCTCAACCTNATCTAAACATCTA
GAGTNTGGAGAACGTGCTGGCCAACAGAATACATGTGCATGTGGATGTCATGTGACATGC
ACTAACCAACCATCCNGAGGNAACTGTTGGGAGGAGGAACTGCCACAATNTTGA
AATCCAGGCCTACCAGGCCATTATT

Sequence 138

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGNGCCCNNTTTCAGA
CAGTTNTNGATTGCTCTAGACTTTTTTTTTTTTAAATAGGGAGGGAAAAAATTTGATA
ATTTCTTTTTTCTACATGCACTTAAGACTAAACACAGGTTTGGATTAATTTTATTTGCT
TTCCTTTTTCCGCTTTTCTTCCCGCAGAGCCTGATGGGAGAATGTCCAGGGCAGGGAAC
CACATTTTTGTAGGTGATAACTCAATGAAATTTGGTGCTTATTTTTACACTTCTCTCT
TGTGGCTCTCTTNGGGTGCTATCTGTTTTAAGGTCTCCTTGAAGGCGCACTGGGGTCCCT
GGCCATGCCTCGTTCTCCCTGCTTCTTTA

Sequence 139

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTGCTATAGACGCACAAAC
GACCGCGAGCCACAAATCAAGCACACATATCAAAAAACAAATGAGCTCTTATTTTGATA
CTCATTTTTCGGTTCGCTATCCAAATGGCCCGGACTACCAGTTGCATAATTATGGAGATCA
TAGTCCGTGAGCGAGCAATTCAGGGACTCGGCGAGCATGCACTCCGGCAGGTACCTGCC
CG

Sequence 140

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTGATAGAACTAAGGAAATAGTGGTTTTGAG
TGAAGGGAAAGGAAACCCAGAAACATTTTACGTTGCTTTTACTTCTGTAGTGTAGATTGC
CCCGGCCCTCTCTGAGCCCTGTAGCATCTGTGATAGCTTNTGTCCCTTCATCGGTTTCAT
GTCACAGGGATTTTCTTCCAGGAAGCGGACACGGAGAGTCAGCCCTAATAAATGAGCA
CATGCCCTGGC

Sequence 141

GACTACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGATTGTTCTCA
AGAGGGCCATCAGAAGGAAGCCAAAGAGTTCACAGCCTCAGCACCAACAACCTCAACATGG
TCATCATGTTTTCTATATGGTTTTTCCAGCTAGCAGTACCTGCCCC

Sequence 142

CCGCGGTGGCGGCCGCCCGGGCAGGTACCCTGAGAAGCATGGGGCAGTAGAAAGAGCATG
TGGGCTTTAGAGTTCAAACCAAGTCAGGCTCAACATAGTTCTGTGATAAGCCCTGAGCA

Table 1

AGTTACCCGGGTCTTCCATTTCCCCCTTCTGGAGAAGTCCTTTGGAGGATGAGTCCTTCT
GGAGGATGAGTCCTTCTGGAGGATGAAGTCCTTCTGGAGGATGAGTTTCGTTGTAAGAATA
AAATGAGAATGTAAGACACCTAGAGGATGCCCCGAGTAAAAAATGACAGTTGCTAGTAGTA
GTAATTTGTAGGGCTCATTATCTAGAATAATTTGTTTGACGTTACTAATTAATGAAC
TCTTAAAGAAAAGCAGTGATTTAGACTCTTGTAGTTAAGAAAAATTACACCACAGAGCC
CTTTTACTTTTTAAATTCATTTTACATTTTAAATTCATTGCATGTATTCATTATG

Sequence 143

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTATATTAAGTGGT
TCTATAAAAGCTATTCACAAGTTCTACTGTGATGGACATCCTCATCATAGACAAACCTCC
CCTGTTTTATCCTCAATTTCTAGTTACAGAAATTTGGTGATGCTTATTTTGGCAATTTT
ATGTCAAAATAAGNTAAACTTCCCTCCTGTTACCTCTTGGGTCTCTATCCTGTGTAAC
CTNTGGTGTAGTATTTGCCCATAGGCAACCAGAGCCACTTCCTCTGAACCAACATCTNC
TGGGGACCTTCGCAGCANGAGGAAAGCACTGAGACAATAGCTTGCTAAGCAGGGGCCAG
NGGTGTCTCAAAGAAACCATGGNTGTNCTCGCCACTTCCCAGGGNGGGTGANGNGAGCTC
GGGAACATAACGATGGTTTTG

Sequence 144

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGATTATG
CTTACCTCAGGTTTCTTTAGTGTGCTTGAATGCCCTTCTTTCCATATAACACTTATCTTC
TTCTTAATTCGGCAATGGAATATCTTTAAGTTTTAAAAAACTGGAATAATTATATCTA
TCTTTTTTGGCGTTTATATTTAGGGGTTTTTGTGATAAAATCAAGTCTTGGTTGGCT
TGCTGAATTAATATTTATGAGTGGTGCATTTTTAAGTATAGTGAACAAGACACCATATT
AAGTACCTCGGCCGCTCTAGAACTAGN

Sequence 145

CCGCGGTGGCGGCCGAGGTACCTGCCGGAGTGCATGCTCGCCGAGTCCCTGAATTGCTCG
CTCACGGAACATGATCTCCATAATTATGCAACTGGTAGTCCGGGCCATTTGGATAGCGA
CCGCAAAATGAGTTTACAAAATAAGAGCTCATTGTTTTTGTATGTGTGCTTGATTTG
TGGCTCGCGGTCTGTTGTGCTCTATAGCACCTTGCACAATTTATGATGAATTATGGAA
ATGACTGGGACATGTACCTGCCCCG

Sequence 146

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTCATCAATGT
CTCTAAACTAGGTCTTGAATCTAAATGGAATTATACATAGAATATTACATGAAGCAG
TTCTTTCACTACAATCATTTTTAGCCCCCAGTGACCAATCTCCTCAGGTAAACAATGTC
TAATGACTGATGATTGTTTACTGTATGCCAATTACTGCTAAATCCCTCATATAGATTATC
TCATCTATGAAGACACAAGGATTATTAATAACCCCACTTCAGAGATAAACAGACACAGGT
TAACACATCTCGCTAACACCTNTTGAAGTGAAAAACCAAGTTCAGAGCCCCAAAAAGTT

Sequence 147

CCGCGGTGGCGGCCGAGGTCTGTATCTCATGTTTGCTGATGGCAGTTTGTGGGAGAGGGA
ACCATTTTCAAGCAATGATTTAGTTAGCAAATAGCTTTGCAGCTTTAACAGAACTCTCTCT
GCTTGCTTTTTTATTTCTGGGTTTTCTGGCCAGGCGCGGTGGCTCACGCTGTAAATCCC
AGCACTTTGGGAGTCTGAGGTGGACAGATCACTTGAAACCAGGAAGCCAGGAGTTTCGAGA
CCAGCCTGGCCAACATGGTGAAACCTGTCTCCACTTAAAAAAAAAAAAAAAAAATTAGC
CTGTAATTCCAACTACTCGAGAGGCTGAGGCACAGGAATCGCTTGAACCTTGAGAAGCAGA
GGTTGCAGTGAGCCAAGATCGCACCACTGTGCTCCAGCCTGGGCAACAGAGCAAGACTCC
ATCTCAAAAAATAAAAAATAAAAAATAAAAAATA

Sequence 148

CCGCGGTGGCGGCCGAGGTACACTAAGTTTGCAACATTTATTGAGATCTAAGTCTGTCTT
GCCTTCATTTCTCTTTTATCTCCCCCTTGCCCTCATTCTTGAACAGCTGGAGGAATACA
TTTTATTCTGTCCATGAAGCATACACTATGAAATTCAGTGCTTAAAAATACTTCTATGA
CTCTCTGCTATCCCACTGTATAGATCCACAGGGAGCAAACTTAGAAATGATAGAGAAC
TGAAGGAGATCAATGGTTTAAACAGTTATCCATGCCAAGTCCCATTTGTCAGAAATATTCTT
ATTACTCAGTCAAACACTCTTTGAGCTTCCCTTCTAAAGGTAACCATTCAGTGAATAG
ATGTGCCCTTTTATAAGGAACTTCTGATGTTTATTAATAAAAAAACTGGCCTTTTGATAAG
AGGGAACTTAATTTGGGAATTTGGTGNGTTGNAATGGCATTTAATT

Sequence 149

CCGCGGTGGCGGCCGAGGTACAGAAGTTAGAATTTTTGACTCCAGGCAGCAGTTTGCTCA
GTGATCTTGAACAAGTTATCCAATTGCCTCTACATTTGCATCAGTTTCTCTAGCTGCAAA

Table 1

ATGGGGATAACTATATACCTACCTCACAGTGGGAGGGCAGGAGATTTTGAGGCCCTGA
GGTTTTAGGTGGGCTGTGAGGGCCAACGCTTGACACAAAGTCCATGGGTTATTATTCAAG
AATGCACAGGCCCATCGGCCCTTTAGAAAAGACAAGACAGGGAGTGCTTGTGATATTTT
AAGGAATAAAGCCGGAGCTCCTGAATTGTAGTCCACCTTAAAAGAGAGACCTGTATTGGA
GAATATTTTATTTTTTGGCAAATTTGATCTTACCCTTTACCAGTTCTATAATTTGGTTA
AAAGC

Sequence 150

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGGGTTTGAACGTGAA
CGTATCTTTCTTGGGAGATGCGATTCAAGCCACAAGAGCATTCTACTGTAAGAAG
AAAACAAATCGAGTTTAAATCCTATGTATCTTTTGTTCCAAACCATGCTGCAGAACTA
AAACTGAACTGCACTATATATATTTCTAGGTGTCTGAAGTTTTGAAAGAGCTTCCCAAAA
CTTTAAGGTAGATCCCTAGTTTCATCATAAATGTAACATAAAAGAAATTGGCCTAAATGATT
TCAAAGATCTCCACCAGCTCCTGGTTAAAACTGCAAAGCTATGATGTTGTGGGCTTGTA
AAAAAACAAAATACACACACACACACACACACACACACAAACAAAAGTCAAAGCAC
AGTTGGTGTGCACCTGTAATCCCAGCTACTTGGGAAGCTGAGGGGAAAGGGTCACTTGG

Sequence 151

CCGCGGTGGCGGCCGAGGTACTCAGGTGACTTTCTGGTTAAAAATATTGAAGACGGATGA
CAACTGGGCTTTTTTACTTTGACAACTGAGACAAAATGACAAATTGTCAGTGTTCAGAG
ATCCAGACCAACTTCTCAAAAAATATGTTACCCCTGATATCATCATTATTTAGCCCA
ACTGTGCCCTTTTGGGGGATCACAACCTACTTGGCTTTTTTGTTTAAAGNTAAAAA
TTTTTGGGCCCTTAAAGCNAGGGGGTTAGGNNANNATAACNCCCCCTNTNNNNGANN
GGGGTTNGAAAAACCAACCCCCCTTTTTNGGTCCNCGGGGNGGCCAANNCCCTTTTT
TNTTTCNTTAANGGGGGTTTCCCCCGGGGGGGGGGGGCTNTTTNTNGGNNNGNNNTA
AAAAAAAAAAAA

Sequence 152

CCGCGGTGGCGGCCGCGCCGGGCAGGTACATTATTTGATGGACGAAAACGGATGATCTTG
AGCACTATTTTCATGGATGGGAGGAAAAATCCATTTTTGGGGATTGCTTACATCGCTGTT
GGATCCATCTCCTTCTCTGGGAGTTGTACCT

Sequence 153

CCGGGCAGGTACCAATTAGAATGTCTTCAGTTATTAGTAATAGAGCATCCTAAATCAACT
GGCTTAAAAATAAGTTTAGTCTCTCACAAAAGAAACAGTCCAAAGGAGGAGTGGCTACAA
GGCTGCTTGGTTTGGTGGCTCAAAGACATCATCCAGGTCTCAGGGTCTTTCAGTATTTCT
GCTCAGGCCATGATTAACTATAATCCATTGCTGAAAGATGGTTACCAGGCACCACATCC
AGACAAGGTACCT

Sequence 154

CCGCGGTGGCGGCCGCGCCGGGCAGGTACCACGGTTGTAAAGCAATAAGATTTGAGATGAA
CACTATTGAACTTCGCTTTTTGCTAAAAATAGCAAGTTGAATAGTAATCAAAAAACAT
AGAAAGATTTTAGTTCAAAATGATTGCTCCTTTCTCTACCTGGACTTTTAAAAATCAAT
TGTCATCTAATATGAGTTTATTTGTCTATAGACACAAGTATCAATGTCTAAAAAAATCA
TGACTTTAACTTCCACCGATGAGGCAGGTAGGAGATAAAGATGAATCTGAACTGTTAC
TAAAGTACGAACCAGCTCGTTATTAGATGCATTGTAGACAACATCGATGATCCTTGTTT
TAACGAGTACCT

Sequence 155

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACAAAGCTTA
TTCACATTTTTACTAAATCCAACACAACNTTCACANATGGNAAAATGATTGCCTCTTCAA
AGCAATGCAGCCTAGTTTTTGGTGGGTTCTGGTCACTGCTTAGCTAAGTCTTTGTGGGC
AGAGTCTTGGCTCCACAGTCTCCTTCGATGGGCTCCTTTGATACACGANGCTTTATAACA
TGCCCTTTTTTGAAAAACCATTTNTGATGATCCCNCTTNGGGCCCNCTNTTAAAAAAN
GGGAAAAAAAANTTNGGNTTNNATTNTTTTTTGGGNGGCNGGGAAAAATTTTTTTTGG
GNNGGGNGGGGAAAAAAAACCCCCCNCCCCNNGNANAAAAAATTTTTTTTTTTT
TTNGGGGGGGGTTTTTTTTNAAAAAAAAGNNNNANNTNCTTTTTTTTTTC
CNNNNAAAAAAAANNNNNNNNNNNNNNGGGGGGGG

Sequence 156

CACTACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACTCGCGATGCCCCC
GAGTGGCCTCTGCCAGGCTGTCCCGGCCCTCTCGGCTTCCCGGGGACCCAGTGGTGTAGG
CACGGACCATGTTGTAGGCACCATCCCGGAGACGCCGCTGGACACAGTATGCCTCATACA

Table 1

GCTCATCGATCTTGCTGGCATGGAAGTCCAGTCGTCGCAGGAAGCGTTCAATGGACTTGA
CTTGCTTGTCCAGATCATACAGGAAGCCCAAGCGGGAATTCTCTTGGAAGTCCCTTATCT
GCCCCTGGAGTTTCTCTTGCTCCTGCTGGTGCAGTCCAAGTAGGCCGTCAGGCCCGCGT
TCAGCGCCCGTGTACCTGCCCG

Sequence 157

CCGCGGTGGCGGCCCGCCGGGCAGGTGGCGGAGAAGTTTGACCACCTAGAGGAGCACCTG
GAGAAGTTCGTGGAGAACATTCGGCAGCTCGGCATCATCGTCAGTGAAGTCCAGGCCAGC
AGCCAGGCCGGGCTCAACCAAAAGCTGAATTTATTGTTACTGGCTTACAGGATATTGAC
AAGTGCAGACAGCAGCTTCATGATATTACTGTACCT

Sequence 158

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATNNAAATNATACGT
TTTAATAAAATACATCTTTAGATCAAAGCTGAAAGAAGACATCAGTAGTAGATCAGAGNA
TTCCATTT

Sequence 159

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTGGGTCTGAAAG
TCGATGAAGGACGCGATTACCTGCGATAAGCTTCGTGGAGTTGAAAATAAACTATGATAC
GGAGATTTCCGAATGGGGTAACCTAAGTGAAGCAAACTCAGTTGCATTTTGTGAATCCA
TAGTCAAATTAGCGAGACACNGTTGCGAATTGAAACATNTTAGTAGCACCCGGGAAAAAAA
AAAAA

Sequence 160

CCGCGGTGGCGGCCCGCCGGGCAGGTACTATCATTTGCACACAGCAGATCAATAGGTGTC
AGTCACCAGCTTAAGTTACACTTGTCAATATTTCAAAGTGAATAAAATAAACACACATCA
CAACAGCGACACTTTGCACTATCAACAATGAAGCTTGCCCTCAACAATTATGACGTTACT
GGTTTTAGTAACATAAAAAATACATTGCTGGTTGACAGGAAGGATAAAAAATGACATCAAGA
ATCTCAAAAAGTTATGTTGAGGTGCCGCTCACCACATTTAGGCACTCAGGAATTAAAAAT
CA

Sequence 161

CACTACTTAGGGCGAATTGGAGCTCACCAGCGGTGGCGGCCGAGGTACATACATTTCTTAG
GGACACAGNATACTGACCACATNACCACCTNTTCTTCCAGTGCTGNGNGGACCATCTGG
CTGCCCTTTTTTCTCCAAAAGATGCAATATTCAGACTGACTGACCCCTGCTTATTTC
CCAAAGACACGATGCATAGTCACCCCGGCCCTGTTTCTCCAATGGCCGCGATACACTAGT
GATCATGTTTCAAGCCTGCTTNCACCTGCATAGAATCTTTTCTTCTCAGACAGGGACAGTG
CGGCCTCAACATCTCCTGGAGTCTAGAAGCTGTTTCTTCTCCCTCCTTCTCCTCTTGC
TCTAGCCTTAATACTGGCCTTTTCCCTCCCTGCCCAAGTG

Sequence 162

CTTAGGGCAATTGGAGCTCACCAGCGGTGGCGGCCGAGGTACATCGTCTTCGTCTTCCTCC
TGGGCGCCATCTGCACTCGAGAGGCCCTTCGCTATGACTTCCTGATAGCGGAAAAGGTAT
CCCTCATGGGCTTCCTGTTCTTTTGGGCTTATACATCTCGTCCCTGGCTTCCTGCATGG
GAGGACTTTATGGAGCTCCCCGCATCCTGCAGTGCATTGCCAGGAGAAAGTGATCCCTG
CACTTGCCTGTCTGGGACAAGGGAAAGGGCCAAACAAAACACCCGTGGCTGCCATCTGCC
TGACCAGCTTGGTGACCATGGCCTTTGTTTTTGTGGGTCAAGTGAAACGTTCTGGCCCCC
ATCGTCACCATCAACTTCATGCTGACAATACGTTGCAGTGGACTACTTACTTCTCCCT
GTCCATGTGTTCTGTCAGCCTGACCCCGGTGCCTGAGCCGGTGCTCAGGGAGGGCG

Sequence 163

CCGCGGTGGCGGCCGAGGTACCACAGTCTTGACATAAGTGAGATTTGGCTCAAGTAAA
GAGAATTTCTCAACACTAATTCAGTGGGATAATCAGCAGCGTAACCTACCTAAAAGCA
TATCACTAGCCAAAGAGGGAAATATCTGTTCTTCTTACTGTGCCTATATTAAGACTAGTA
CCTGCCCG

Sequence 164

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACCTACAAGCTAGAGTGG
TAAATTTCAAGAAAGCAGAAGTTAAAGGCAAAATTGTAATCAGTCGAGATCGGGTGCCT
TCAGGGTGGTATGGCTGTATACCAAAATTGTAATCACTACATGAAGCTTATATATTGGT
TTGGCCTGAAAGGTGAAGTGGGGTAGGCAGGGGGCGGGCTTACAGGTTATGGNGGATTCA
AAGACTCCCTGATTTGTGATTGGNTAAGGAAGCAAGCTTTGTCTAAAACTTGGGGTCC
GCANAAAGGAACATTAAGGTCTGGCCA

Sequence 165

Table 1

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATAAATATGGA
AGAGCAGTTTGTAAATATGAATACATTTCTCTAGACGAGATCACAGTTTTATTTTGTA
TATTACATTTAAGTATATATATACACACATATGTACCT

Sequence 166

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACCTCAGGG
TTATTTACGAAGCCAAAGGACTTTGCTATATCAAGTAGTTCAATTTCTTATCTAAGACCAA
CTATAGGTATGATGCTACTGTATTGAGGCAATGCCGACTGGATTGGAACATGCTAATTTA
AGGTGAGTTGGTACCT

Sequence 167

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGTTTTTGCTCA
AAATATATGAAAGGAAAGATAATCAGTTCTTAAAGTTTGGTATGCTAAATAAGCACCCAG
GGAACCTTACCTGCTCCACCTCACCCAGAAATTGATTATTCAGGTCTGGAATATGGCTCA
AGGATTCCTTAATTTCAACCAACACAATATAGAATCCTGTGAGTTATCCTTGGATCATT
GCTAAGTGATCTTGCAAAATCAAACTCCTTTGAGACTATTTCAATTTTCAGAAATATTT
AAAACCTGTTGAGAAACATCTTAAACTTGTTAGCTTATAGGAAAAAGTNCNTNGGCCGT
TTNANACNNAGNNGGANTCCCCCGCCTGNAGGATTCANTTNAGNTTNATGANTNCGGC
CACCTNGNGGGGGGGGCC

Sequence 168

TACTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCCCGGGCAGGTACACCCATCAA
GCCACCAGCCTGGCCAAACGGGCATCTTTCTGTCCAGAGCTCATCAATAGGAAGTGGGCA
ACCAGGTGGGGAGCCGCCAGGGGAGCTTGGAGAGGGCAGAGTAGGAGCCTCCATGAACCA
AGTCAGGCTGGAAGGGGTCAGCCCTCGTGGTCCGTCAGCGTGCGGCCGAGTCCCTGTGCC
TAAGTAGCAGAGCGGTAGTCATTGAAACAGGCCGGGATGCCAGCAAGAGGGAGGGCAGCA
TGCAGTGAGCGATAGGTACCT

Sequence 169

CCGCGGTGGCGGCCGAGGTACCTTGAAGCAATATACTCAATGAGCTCTAAATCTCACATT
CACTAGTGATCTGCAAGTGAAGCTGAATAAATATATTCTCTTTGTTTCAGTCATGGAACT
CAACATTAGAAATGACATGTGGGAATAGATCACCTTCTCTCTAGACTAATATCCCATTTT
TGACAGTGGTCTCCATGGCCCATTTGGGGCTTATAAAGTAGCTGCCTTCTGTGACATTCTG
CTTGAAGACAAAGGCTTTGCCCAAACATAACTCCTTTTAAAAAGCACAACTTGTATAGG
CACACAGAGGTTAAGTGACTTACACAAATCCACCCAGGATTGGTGATTGGCACCGGTCTA
ATCTACTGAAAAATATAAGGCCAGGCAATTATATAGATATCTTTTAAACAAGTTAGTAAA
TAGTGGGGACTTTTCTGGCTAAAAATTGGTAATTAAATGGGNATGGTTACCTCTGGTTAT
AACTAAACAAACAAA

Sequence 170

TATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACGAACCATGCTCGTTATTA
GATGCATTGTAGACAACATCGATGATCCTTGTTTTACGAGTACCTGCCCC

Sequence 171

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTAAATAATAACAGAAAC
CAAGAGTTTGTCTTAGTAGTAGAAGTATAAGTGGAGAGAGTGCTACATCAGAGAGTGAA
TTTACCTTAGGGGGTGACGACAGTGGTGTGTCAATGAACCCAGCTAGGAGTGCATTGCA
CTGTTGGCCATGGCCCAATCTGGGGATGCAGTCAGTGTCAGATTGAAGAAGAAAACCAA
GATTTAATGCATTTTAACTTCAAAAGAAAAGAGCTAAAGGAAAAGGGCAAGTTAAAGAG
GAAGACAACAGTAATCAGAAACAGCTGAAAAGACCTGCCCAAGGCAACGCCAGAATCCA
AGGGGAACAGATATTTACTTACCGTATACTCCTCCTCCTCAGAAAGCTGCCATGATGGT
TATCAGCATCAAGAAAAAATGAGACA

Sequence 172

CCGCGGTGGCGGCCGAGGTACCAACTCACCTTAAATTAGCATGTTCCAATCCAGTCGGCA
TTGCCTGAATACAGTAGCATCATACCTATAGTTGGTCTTAGATAAGAAATGAAGTACTTG
ATATAGCAAAGTCCTTTGGCTTCGTAAATAACCCTGAGGTTTTGTACCTGCCCC

Sequence 173

CCGCGGTGGCGGCCGAGGTACCAACTCACCTTAAATTAGCATGTTCCAATCCAGTCGGCA
TTGCCTGAATACAGTAGCATCATACCTATAGTTGGTCTTAGATAAGAAATGAAGTACTTG
ATATAGCAAAGTCCTTTGGCTTCGTAAATAACCCTGAGGTTTTGTACCTGCCCC

Sequence 174

CCGGGCAGGGTACCAGTGCCCTTTTCAGACAGTTTTTGATTGCTCTAGACTTTTTTTT

Table 1

TTTTTAATAGGGAGGGAAAAAATTTGATAATTTTCTTTTTCTACATGCACTTAAGACTA
 AAACACAGGTTTGGATTAATTTTATTGCTTCCTTTTCCGCTTTTCTTCCCGCAGAGCC
 TGATGGGAGAATGTCCAGGGCAGGGAAACCACATTTTGTAGGTGATAACTCAATGAAA
 ATTGGTGCTTATTTTTTACACTTCTCTCTTGNNGGCTCTCTTNGTGGTGCTATCTGTTTTA
 AAGGGCCTCTTGAAGGCGCACTTGGGGTCCCTGGCCATGCCTNGTTCTCCCTGCTTTCTT
 TAATCCTGGTATTGCCTCCACAAGGTCTGTTGCCAAGGACTCTTAAAGATCAATGGCAGC
 TCACTTTTCTTTCC

Sequence 175

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCTTGG
 ATGTGTTTTCTCACCAAGATGAGCAAAGAAAGGTTTGCACAGAGGAGTGTGAATGTGTGT
 TTGTTGCTGGCTGAATGGCAATAGATGTCTAAGGTGGATTCAAGTGTCTGGCACACTGAGA
 CACCTCCAAGAAGGAGATTGATGCATCAGGTTCAAGTTAACCTGGAATATCTGACTACCC
 CTGAATCCACCCAGAAAGGGGGCCCAACACCCTTGTCCATTATGGGGTATTTTTTTTCG
 AAGTTATTAAGCATATTCCTTTTCCACGAACCTCTTCTGTACCTCGGCCGCTCTAGAACT
 AGTGGA

Sequence 176

CTATAGGGCGAATTTAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACGCGTCGCAA
 TTCAGGATGGCTCTCTTGGATCTTAGCTTGCAACTCGGCCTCCAAGCTTGTACAGACAT
 GGAACTTTTCTGAGGAAACAGGGCACAACACAGGGGTGTAGCAACACCAAAACAGAAGCC
 AACTAACCCAACTTGAATGGGTGCACTCATCCATGGGAACCTCTTCAAAAAGGCTTTCTT
 TTCCAAAGTGTTCATAATGAATGGAGGGATGGCCATGCCAGGGGCTGCCATGAGAACTCT
 GGACACGACAACCTTGCCTGATGGCTTGTTCGCAAGCGTTCGCCGACTCCCCCAAGCGGT
 TCCCATTCTCATTCCCGTGACGGGGAAT

Sequence 177

ACTTAGGGCGAATTGTAGCTCCCCGCGGTGGCGGCCGNGGTTACAAGCTATTATATATT
 TCATAATATAGAACTTTAAAGTATAGTAATCAACAGTGGCAAATATTTCTGTCTCTGAC
 ATTATTATTTGTGAGATCCAACCTGTAATTGAGATCAGAGAAAACAGTATGGGAAAACAA
 ATCCATGAGAACAGGATAAAAAATATCATGAACAGCAAAATATGTCTGAGTATTTAAACT
 GTATAGAAAAAATAAATTAGATGAACAATTGTGTAAATATAAATTAAAAAAGATGACATT
 CTTAATAAATAAAGTTTACTATTTACATTTTATATATTGCCAAAAGATT

Sequence 178

CCGCGGTGGCGGCCGNGGTACACGAAGTTAGAATTTTGAAGTCCAGGCAGCAGTTTGCT
 CAGTGATCTTGAACAAGTTATCCAATTGCCTCTACATTTGCATCAGTTTCTCTAGCTGCA
 AAATGGGGATAATACTATATACCTACCTCACAGNNGGAGGGCAGGAGATTTTGAAGCCCT
 GAGGTTTTAGGTGGGCTGTGAGGGCCAACGCTTGACACAAAGTCCAT

Sequence 179

TGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGGTACTTCTGAGGAGTGAAGCTGTTT
 TCTGCTACCCCTTCTGTCTGGTGGCTCANGAAGTTCAGTGTCTCGGTGTCTGATGCAGT
 GAATACCTGGGATTACAGTCTGGCATGCTCATTCTTAGAACACAGGTTTATTCTCAGGA
 TGATTTATAGCAAGTGATTCTGGTTCCAGTCTGGTTGAAAAAAGTGAATATTGAATGTC
 CGGGCCCAAGTTTTTAAANNACTCTTTTTNTTGGGAAAAAAGCGGGGNAAAAACCGGCC
 CTTGGGGCCCCCTTNNNNNTANGGGGNNGGGGNCCCCCCCCCTTTTAAAAAANNANG
 GGNCCCCCCCCCGGGNNNGGGNGGANAANTTAAAAAANAAGNTTTTTTCCCCCCCCCCCC
 CCGGGGGGGGGGGGNCCCCCCCCCCCCCNCNTTTTTTTTTTTTAAAAANNNNGGGNGC
 CCCCCCCCCCCCCANA

Sequence 180

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGTTTATAGACT
 CAAAACATGATGAAAATTCATTTCAATTGTCTTCACTGAATAGACTTAACCTTGACAGTAA
 GCTTAAAGCATTAGTGTCAATTAATTACATGTCTGAGGAATTTATGCTAACTAGATTTTG
 GGCTTTTGCAGCGAATTTTAGTCGGGGCCTCATTCTGAGCCCAAGTGACCTTTTACCT
 CAGCTTCCCAAGTAGCTGGGATTACAGGTGCACACCAACTGTGCTTTGCAGTTTGTGTTG
 TGTGTGTGTGTGTGTGTGTGTGTGTGTATTTTTTGGTTTTTTTTTACAAGCCCAACAT
 CATAGCTTTTGGCAGTTTTTAACCAGGAGCTGGTGGGAGGATCTTTGAAATCATTTAGGC
 CAATTCTTTAGNTACATTTATGATGAACTANGGGATCTACCTTNAAGGTTTTGGGG

Sequence 181

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCATGG

AAAGTATTAAGATCTTTAAAAAATCGAATGCTGTCATGTCAAAGTGAGGCATGAAAAG
TATTATTAATGTGGCTCCATCGATTTGGGGGTTCCAATCTGAGGAGGGCTTTTTATTTAA
TGTTTTAATGAATCAAAATATCTTCTTAGAATGTCTCTGAAAATGGCATCTCATTACCTT
A

Sequence 182
CACTNCTATAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAA
AGTTCACCCACCCTGCACTTTGGCCCTTAGATCAATCCTAAGTAGCCATTGCCAGTAGGC
CAAGTTTAATCAGAGGACAGTGCCACCAGTAAATACTGAATAGTTACAATAGTTATGTC
CATCCAACCCAGTAGCAGATGAACAGACTAATACATCATGATGCTATGCTCTCCTAACAGGG
TCCCCTCAGATCCTCAGTGAGCACATAAGAAAGGAGGTCATATCCCCATCCTTCTCTA
CCAGGGATTAACACCTAACTACTTCTCTAAGCCAGAGGCAATTCCTTTATTTCTTACT
CTCGGTCGNNCTTNTTTTTAACCCAAATCTTCTGACCAATAGGGTAAAAACAAAA

Sequence 183
TCACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACACACCGGCA
TGTTTATACACAGGAGGAGTGATGGTTCCTGTAAGCACTAAGTTAGCTGTTTTCATTTAAT
GACCTGTGGTTTAAACCTTTTGATCACTACCACCATTAAGCAGCAGGAGCTGAGCAGCTA
TATCCTTTTATTAATCATGGTCATTCATTCACTTACAAAAATATTTATGATGTATT
ACTCTGCGCCAGGTCCCATGCCAAGCACTGGGGACACAGTTATGGCAAAGTAGACAAAGC
ATTTGTTCAATTTGGAGCTTAGAGTCCAGGAGGAATACATTAGATAATGACACAATCAAAT
ATTAATTGCAAGGATGTACACAGTGNTGATGAAGGGTAGAGTAGGAGAGACCATGANTA
TTGTGGTAACAGGAGGACCCAGCATATTCTAGTGCTGTACCTGGCCCCGGCGGGCCCGCT
TAAACTAGGNNNGGATCCCCNG

Sequence 184
CACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTAACCT
ACCTTTAAGACTGGGATAACTATTGGAACAATAGCTAATACCGGATATAGTTATTTATC
GCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAAAATGGGGGTGCGGAACAT
TAGTTAGTTGGTAGGGTAATGGCTACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCT
GIACCT

Sequence 185
CCGCGGTGGCGGCCGANGGNTCNNNTNCNTNNTTNTTATTTNTGGGANGNTGNNTNTTT
TTATTCCTAGATNTGGAGGAANCATATTTNTNTNTTNTTATAAAACCTGATTGTAATAATT
CTTTCCTATCAAATCTCCATAGGTCAAATATTTGNNNGGAATACTAAAAATTTGCAACCTT
GTTTACTTTAAAGGTGCCACTTTCAGTGCGAATACTACCCGGCATCTGTTACTGCAA
TAGTTGGAAATAAATGTGAAAAATTCAGCAGAAAAAATACAAAAAATAAAAAACCCT

Sequence 186
TCACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTCTGATAAAGTTCT
TGAGATCCTGTATGTTCTTCAAGACCTTTATCAGAGTTTATGTGAATGCGGCTATTTTCT
GTTTATAGGACAAACAGGACTAAAGAGTTCAAGGGAATATGCTTGTTTGTCCACTTTCA
TATGCTTCTGTAAAACCATCAAGCTGAATCGAATTCTCTTCAGGATTTCTTATCTCCCCG
TAACCTGCCTTTGGTTCAGTCTCCATGTTTACATTCCTTTATTTACAGGACTCCGCCTT
TTATCTTTCTTTGAGCTAAAAAAGCAACCTGGCTGGGAGGTAATTATACTGAGAAATTC
TGATCAGTTGATATTTAAGGTCTGAGACCTTCCTAACCTGCTGCTTCAGACCTTGACTT
ATCTACCTGCGT

Sequence 187
GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTACATGGGTGTTTGTATCTCT
GTTCTTTTCATACTACATTGGAACAGGGGCAAAATGAACCTAACTGCCATGTAGGCTAAGAAA
GAAATGCTAACCTGTGGAAGATTGGTTTTGTAAATCCATGCATCTTGCTGGAGAAGCA
TCCAAGGAACCTTCATGCTTGATTGACCACGGACAGCCTCCACCTTGAGCACTATTCTAA
GGAGCAAATACCTTAGCTCCCTTGAGCTGGTTTTCTCTGATGGCACTTTTGAGCTNCTAA
GCTGCCAGCCTTCCCTTCTTTTCTGGNGCTCAGGGCATGCTTATTANAGCTGGGTGG
TATTGGAGTTGGCAGACAGGGATGTTCAACTTAATGAAAAAATACAGNTTAAAGGNCNTT
GCCACAACACCCCTCCGCTAAGTATCTTGGCTTGNNGGGNGGGGCATNTAAAGTTAAAGG
GNACNGGGNTTAAATNCCCTATCCCTTTTTTC

Sequence 188
CCGCGGTGGCGGCCGAGGTACATTTCTAAATAAATATCTTTGATCTATAACCCCTTGAAAA

Table 1

TATTACAGTTTATGGTGACATGATAGAGACAAGTCAAAACAGTATTATAAGTGAAAATGAA
ACATCAATTTAAAATGAACAAGTGAAAAACACGCGGAAGTGAATTTATAGAAAATCAAA
ACACTAAATACACAGTAATTAATATCTAGCACTGGAATCACCAAATGCATGCCGCGAGTA
ACACACTTTCAACTGATATAAAAAAGCCCTTTAAGATTACATAATCTAAATAAATAAGCA
GAAACACAAAGGGGAGGTACCTGCCCG

Sequence 189

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGAGGGAACTGTTGCA
AAGCCATTTTCATCGAGAAGGGGACAGAAGGAGAAAATACACACATGTATACACAAACAGAA
TGGTTGAGAAAACGTTTTAATAAAATGTGAGGGTTGTATGTGTGCGTGATATATTTTACA
CTTAACCTCTAAAATTCTCTTCTACAGTATCTCTGTTATGAATATGATGGAAAAGCAACA
TTTTGGTGGTGAGACTATTGTTAAAATAAATTTGAGAAAGACGAAAATTTTGTGAGTCTT
GATAATT

Sequence 190

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTGTTCAATACATTTTA
GATTACGGATTGACAAAGTAAAGATACTGCTATGGAATGATACATTGTATTTTCTGCAAT
GTGTGAAATAGTTTTTATTGAAAGNCAAGTGACATTTCAAAGAAGNTCTATAACAATTA
TGTTTCATGCTTAAAGTAAAAATCCAGAGTTTGTAGTTAGAAAATGTAATCTTTTAAAT
TTCAGACTGATATATTTCCAGTATTTTCATAATGCCATGTTTTGATAAAGTACCTGCCCG
GGCGGCCGCTCTAGAACTAG

Sequence 191

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTTCTTATAAAAGATTCT
TTCTCCCGAATTATATCTCCTCAGAGCAACAGCAAGGTTCTCAGGATCGAAGCCTACTC
TAGCCTGAAGGGCTAGGAAGATTAGGATAAGGATAAGGATAATAATCCAAAAGTCTCGAC
AATCCAGTAGTCTCTGGATGGCTCCAACATCATAGAAATTTAACACTGTTCCACTTGT
TACAAAATCTAACACTGGCTTAGACATTCTGGACTTTCAGTGAGGGTCCAGCATCTGAT
GTCCCTCAACTCCTTTCCAGGGTGAGAGGCCCACTTACAGGAACTTAACCTTCTACCAT
GTGGACCCATGGAGGGGTTTTCTCTTGAGAAGGGCTAAAAAGTGAGGAGGCTATGGA
AAAAATGGTGGGTCACTTTTAAGGCAGACTGTTNNGGTTGGGTGGGAATTTTT

Sequence 192

CCGCGGTGGCGGCCGCGCCGGGCAGGTACGATTCACTAGGGCATCCTGCGAGCCTCACTAG
CCTTCTGGTTTCATGCCTTTGACAAGCATTTTTGTGCCCTCTGCTTACTGTGACAGTCG
ATGATGAATCTTGCGTTGCCATTTCTGCTGTGGGTAAGTGCCTGCAGNGTCTTGCTTG
CTTCTCTTNTTACTGTCCACAGCTTGGTTTCATGTTACAAACAGAAAAGCTCGAGGCT
CCCACCCCGCCACATCCCAACTTCATTTCCCTCACTGTAGCCCATTTCCACCCACCA
CAAAGTTGCCACAGGTTTTCTTTGTATAGAATATGTTATTTGAAGCTCTATTTTAATAG
TATTTATTTTAGAAAGTCTACTATTGNAAGAGTCTCTTGGTTTGGGAAGAAAAAACA
AGGTAAAAACTGGAA

Sequence 193

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCATAAGCTTGGATTTTAA
ACACTGATAGTATCTCATGAGTAATGTGTGTTTTGGGAGAGGGAGGGATGCTGATTGATA
TTTCACATTGTATGAAATACCATGTTTGAAGTCAATAGCAATAATGCTATGCTGTTGTGA
TCCCTCTCAAGTTCTGCATTTAAATATATTTTTCTTTATAGGAATTGATGTATACCAT
GAAAGTCATTGTGAGTTGTAGTAGGCTCTGATGTTGAATGAGATATCATGGTTTAAGCAT
TNCCATTTTACTGGCCTAGGGGAANAANACCACTTTTCTTGGCTTNCATTTGGGANGGA
TCCCCCAGGGGGNGTNTTTGGGGTGGTCCCTTTTTNTNNGGGGAAGCCAACCATTTCCAC
TAGGCCTCTTTTTTTTNAANCCTTTNAAAAATGGGGAA

Sequence 194

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGGACCGTGAAANGCTGTAG
TTTGCAACCCCTGCGAGTATGTCTGGATCACAGGAGAATGGTCAGAGTGCTCAGTGACCTG
TGGAAGGGCTACAAACAAAGGCTTGCTCGTGACGAGATTTACACGGGAAGGAGAA
TTATGAATACAGCTACCAAAACCACATCAACTGCCAGGCACGCAGCCCCCAGTGTTC
CCCCTGTTACCTGAGGGACTGCCCTGTCTCGGCCACCTGGAGAGTTGGCAACTGGGGGAG
CTGCTCAGTGTCTTGTGGTGTGGAGTGATGCAAGAGATCTGTGCAATGTTTAACCAATG
AGGACCAACCCAGCCACTTATGCCACACTGATCTGAAGCCAGAAG

Sequence 195

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTGGGGTCATAATT

Table 1

ATCGAGTCTCTTGATATTATCACAATTACTGTGCCCCCTGCACCTCCTGCTGCAATGACT
GCTGGTATTGTGTATGCTCAGAGAAGACTGAAAAAATCGGTATTTTCTGTATCAGTCT
CAAAGAATAAATATTTGTGGACAGCTCAATCTTGTGTTGCTTTGACAAGACTGGAACCTA
ACTGAAGATGGTTAGATCTTTGGGGGATTCAACGAGTGGAAAATGCACGATTTCTTTCA
CCAGAAGAAAAATGTGTCAATGAAGATGTTGGTAAATC

Sequence 196

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTGCTGCACAGATTGATA
CATTAGCCTTTGCTTTTTCTCTTCCGGATAACCTTGTAACATATTGAAACCTTTTAAGG
ATGCCAAGAATGCATTATCCACAAAAAACAGCAGACCAACATATAGAGTGTAAAAAT
AGCATTTCTGGGCAAATCAAACCTCTTGTGGTTCTAGGACTCACATCTGTTTCAGTTTTT
CCTCAGTTGTATATTGACCAGTGTTCTTTATTGCAAAAACATATACCCGATTTAAGCAGT
GTCAGCGTATTTTTCTCTCATCTGCGGAGCGTATTCAAGATCTTCCAATACAAGGAA
AATTAATAAAAAATTTATATATAGGCAGCAGCAAAAGAGCCATGTTCAAATAGTCATTA
TGGGCTCAAATAGAAAGAGCTTTTAAAGTTTAAATCCAGTTAATCTGGT

Sequence 197

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTGTTCTACTGT
TTAAAAAGTTTTCCGCAGAACAGTGCATTTATGGCAATGCTATGTTAATGAGTTAGGG
ACATCAAATATATAGTAGTTCCTTATTTTTCAGTTGTGAAATGAAATGGCTAAAGCAGAA
GAGACGTCTATTTTAGTCTTTTAAAAATGTGTGTGGGTGGTCTTTTTCTCAGAAAGCCC
AAAGCACATGTATTTTGTATTCTCCTTGCTATATTCCTGAGACTATACTAAAACT
TTAAGAAAAAGGAAACAGAAAAAGGTAAATTCATGTGTTCCCACTGCTGTGTCTAGAACC
AAGATCACATTATATCATTGTTAAATTTGTGTTATCTAGGAAAGGTGCAATATAGGGAAA
ACACTCTAAGAATCTTTTAAAAACCTAAGGGTTCCCTTATTTTGTGAGAAATATGTNGGG
AAGTGGCCATCCCATAGGAATCTTTTAACC

Sequence 198

CCGCGGTGGCGGCCGCGGCCGAGGTACCTAACCTACCTTTAAGACTGGGATAACTATTG
GAAACAATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCT
TCACAGCTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCT
ACCAAGACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCT

Sequence 199

CTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACTGATGAACA
CCAACATGTTCCAGAAGACCCAAGAGAAAAATCACAAGATGAAGTCTTGAGAGATGACCC
TCCAAAAAAGAACATCTACGGGATACAAAGTCTACATTTGCTGGCAGTCCAGAGCGTGA
GTCCATTACATCCTGAGTGTGATGAGAAGAACAAAGTTGGGAGCCAAGATTATCAAAGC
AGAGATGATGGGGAATATGGAATTAGCTGAACAACCTAAAGTTCAACTTGAAAAGGCCAAA
TAAATCAAAGAACTATAACACAGATACCAAAAAATCTGGGGTAGAGAAATGAAGACCA
GC

Sequence 200

CCGCGGTGGCGGCCGAGGACCTGTGTTNAAAAGATGAAAGAAATGGNTGCTGAACCCAAA
ACATGTTTAGGAGGAAAACCAGAAGAAGCAGTGGCACTGGACCTCCTGTCTGTCCG
TGAGGCTGCAGAACACAAGGCAGCTCCCAATGCCGCTGGACTCTCTGACCTTGGAGAGNG
TAAACATCATATATGATTCTGTGTTCTGAGATCTGGGTTTAAAGATCTGGGCTTTGTCA
TGGTGT

Sequence 201

CACTACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACTCTCGGC
CCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCACTAACTAATGTTCCGCAC
CCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCATCATGCGATAAATACT
ATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTAC
CTGCCCC

Sequence 202

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACAGAATCCAAAAG
TCATAAAAAGCAAAAGCTATCTTTTTTCACTCTGGCACCCATCTGTTCTCCCTGGAGT
CAAACACTATTACCAATTTTGGTATACTTCCAAAGATACTTACTGCATTTACAAGCAC
AGACTTATATTGATTCTAAAAGAATAAGAGACATTTTCAGCATGTTGTTTGTTCACAC
CACAGTATATCTTAAAGATGGTCCCCCATCAATACATATAGAGATCTCTCTTTTATGG
CTTCATAGTATTATCATGTGCTGATATGCCAAAACTAATCCATTAGACCTTTTGGTA

Table 1

TATATTTACTATTTTGCAGTCTTCTGCTCTTAGGAATAAAGTGAAATTC AATCACCTGTA
TAGAAAGTATTTACACATGTTTGAATATATATGTAGAATAAATTC CCAA

Sequence 203

CCTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAAGCTATAAA
GGAACGTTTTTAGAGAAAGCACTGAAGACACACATTTTGCTGACCTAAAAGATTTTAAAA
TGAATTAGAATAATTTACATCATATAAAGAGGTATTTAGTCTTTAAGTGGAGAAAGTTGC
TAGTCACATGTAAGAAAAACAAGTATTATGGGCCTTCCTAAGACAAATGGAATAAATTC
ATCACTTTTGGCTTTTTTATAAACCAGACTTCTAACAATAACCATATTAAATTTCCAGT
AATCAAACATATCCTAAAAGAGGAAAAAGAGAATGTCTACTTTTAAATCACATCCAATGT
GAATTTGCGTGAATGCAAGGCATAAAATACCT

Sequence 204

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGGGCAG
GATGGCAGGCACAGAGCCGCCAGCTCTTTCCCCGCCCACTCTCGGTGAAGCAGTGCAGCT
TGCCCGCCAAGTAGAACGTCGTGAAGCCAAGGCCGAAAAGGCAAAGGAGGAATGGATGC
TGGGGAAGCTTTTGCGCCCTCGGACACCAGATCGGGGTACCTGTGCAATGCATTTCCG
AGTTCATCACTCCATCTTCCCACTATTAATTTAATAGTGTGTGTCAGACTCCATTCAA
GCAAGAGCCCAAGGACACCGCTAAGAAGGCTTCCTTAATTTCACTGTGTCTGTTCCGCCG
ATAATTTTCAACACAAATAACAGCCAGGGGTGTGAGGAAAGAAATTGCAAACATGAGG
CNGGGTAGGGTATG

Sequence 205

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCATATCTC
CTGGCTTCCTTCTACATGGGTCACTTAGTTAAGAGGGAGGCCAAGGGAGTTCCGATTTCA
GGCAGTGTGTGGCAGGGTTACTGTCTAGCAACCTGGCTACTCCTCACTGTGAACGTTTC
TCATAGGTGTCAATGGCAGGATGAAAACATATTTGCCTCCCACTGAAAGATGGCACAG
GCTTTTGCCCAAGCAGGTGGCAAGAGAACAGAACTCTTAACCCCTTGCTCGACAGGTTT
GAGTTCAAGGGGTGGATGCTCCAAGCAGAGGGCCAAACCCTGATTTATGAAGCATGCTA
GGTCAACAGCCAGTCAGACCT

Sequence 206

ATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGCCGGGCAGGTACAGTGCCCCCTG
CTTGTTGTCAGGGGGGTGCCATTGCCGTGGTGCTTGGCATTGAGGGGCTGCAGGTGATG
CATTGCACGGGACACCAGGTCACTCAATTCGGCGATGCTGCCTACGCGCGTGGCCAGCAA
AGACTGCTCGATGGTCCTCAGCTCCGACTGGCTGAACATGGGCAGTTCCCTGACCT

Sequence 207

AGGGCTAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAGCTAAAGAAGG
CAGGAGAGAAAGTTTTTGAGGATGGTGTGTGTAATCGGTCACTATTTACTGTGTGAGTTC
CACTGGAGACAAGCACACTTTCTCCAATCCCAGAGTCTACACCTGACTGGGAATTTTCA
TTCTGGATTCTGATTGAGGGAAAATACTGATATCCAATGGGCTATAAGGAGGACCTTTCA
GTTTCTGTAACAGCATCTGAGTTCTATGCATGTCTTGAAAGGCACCTGCCCAGTGGCTA
ATTACATGCTGTAATCCCAACTGTAAATATCTGACTTCACATTATACCCACGTAAAT
CCTGTCTCAGTAGTTCTGGACTCAGCCACGGCTGCACTGATGTGCTGAACTGTGG

Sequence 208

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAGCTAAAGAAGGCAGGAGAGAAAGTTTTTG
AGGATGGTGTGTGTAATCGGTCACTATTTACTGTGTGAGTTCCACTGGAGACAAGCACAC
TTTCTCCAATCCCAGAGTCTACACCTGACTGGGAATTTTCACTTCTGGATTCTGATTGAG
GGAAAATACTGATATCCAATGGGCTATAAGGAGGACCTTTCACTTTCTGTAACAGCATCT
GAGTTCTATGCATGTCTTGAAAGGCACCTGCCCAGTGGCTAATTCACATGCTGTAATCC
CAACACTGTAAATATCTGACTTCACATTATACCC

Sequence 209

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTACTAAATTATCT
ATGTCAAAAAAATTTCTGTGCTGGCGTGGAATTTCACTCCATCAAGTGTACAAATGATTT
TTTCATTTTCAATACAAGCAGGAGAATGAATGTAGGACAAGTGTAGGAAACATGGCAAT
AAATTAGAATATAATTTACAAAAGCAAAAAATTAACAGTGTACCTGCCCCG

Sequence 210

CTATAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTCTCCCACTCTACA
TGTCTGGCTGTTAATCATCTTGGCCCCCTTGAGGCACATCACAGTTTGAAGGACCTGTTT
AAGTTGAAATAGACTTTGCTTATTTATTGGGATTCTAAAAAATCTGAGTGAGTTTGCAG

Table 1

TATGAGAGGAAATAAGATTTCTCCTCCTTCCTCTCATTTTATATTGACTGTTTGCCAGA
AACTGTTTTCTTCTGTTTTCTTATATTTTGTGTTTGGAGATGGAGTCTCACTCTCTCAGG
AGGCTTGGAGTGCAAGTGGTGCAATCTCAAGCTCACTGCAACCTCTGCCTCCTGGGTTCA
AGTGATTCTCCTGCCTNGGCCTCCTGAGTAGCTGGGAATTACAGGCCCGGGCCACTACCN
CCCGGCTACTTTTTGGATTTTGGTTTTTAAGAAAAACCG

Sequence 211

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTNTTTNNCTTAAATTGCT
TTNTAGNTCTAAGATTGTANAATGANCCCTNNCAAATTGGACTCTTTTCTAACAGAGNTAT
TTTAATATACTTGNTTTNTTAAAAACAAAAAACTACTGTCAGTATTAATACTGAGCCA
GACTGNCNTCTACAGATTTNAGATCTATNATTTTATTGATTCTTAAGCTTGATTAAAAA
CTAGGCAATATCATNATGGATACATAGGAGAAGACNCATTTACAATCATTATTGGG

Sequence 212

AGGTACTGGATGTTAGAACGGGCTCCAGGAGCCAGGAATCCTGGCTCTGCACTGTTGGAA
ACATCTAAGCTAGTCTTGCGCCCATTTACTGGCTTGACAGGGATGCCTGAGGACTTCTGG
ATCTTGCTGAGAGTGGCTGAACCACAGTTTGCATGACAGTGGCTGTGCCTGTGGCAGGA
GGAGGCTTCTTGTAGCCAAAGGATCCCGAAGTGGAGGGGCGAGCAATGCCCGAGGGGGG

Sequence 213

CCGCGGTGGCGGCCGAGGTACTTGAGACCTCATGCATATAAAACCAGCTTACAACTACA
TCGCACTATATGAAGAAATTATCACTGGGGGCAAATCACCAAGTAGGGAGCACAATACAC
AGGGTGTGGATGTTAATGTCATTCCCTAGCCTTCTCATTCCCTTCTCTTGGTCTTTATG
CATATGGAACAGTTCATTATTAATTTTGTAAATAAAGTGAAGACCTGACTCCAGCA
AGGGAGTAGTTCAAGAAAGTTGAGGGGAGTTTAAATCTGAATGAGTAAATAAGCAATTAT
ATCATTAGCTTAAATTTTATCATCAATTAATAATAAATTTAAAAACAAACTACTTAAAAA
AAAAAAAAACC

Sequence 214

CCGCGGTGGCGGCCCGCCCGGCGAGGTACAAGTCTCATAACTATCTCAGCACTGCATCCG
TATTTGTGGGCACCTGTGCCAAAAGCACCTTGATATGTTTCTTAGTGTAATTGGCCAGAG
ATGGCCAATAGATGTCTTCTCAAGTGTGTTTGTACACCAGGTCACTGCTATTGGGAGTGA
TATAATATGGGTGGTTCCTAAAGTTATTTTGGTCTCTTTTTTTTTTTTTTAAAGTCT
ATGATAGATTAACAACACCTGCCTTGATGCAGGAATTAGGTGGGGCTGCACACGTGCAT
GGTATTTCTATCCCTATGCTAGGTTTTGNTTCTGTTGGGCTGTCTTCACTAGACTTGAG
ATGACTTGATTTAC

Sequence 215

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTAAAGTGAAAAGGGATGT
GCANAAAAATAAAAAAACAACAAANAAAGCTAACCTTCTATTAGAAAAGGGGACAGGG
GAATGAGTAACTTCTTTTATTGCGGACAAATGTGCACATAGCCGCTAGTAAACTAGCC
TCAAACAGGATGCTCATAGCTTAATAATAAAAGCTGTGCAAAG

Sequence 216

ACGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACATA
CAGATCTTTTACTGCCTTGGTGTTAAATTTATTCCTAAGTAAGTATTTTTTTATGCTAT
CATAAATGGCATCTTAATTTTTCAGTTAGGTCATTATTTTCAATTATTTATGTATAAAAT
GCTAATGCTTTTTGTATGTTGATTTTGTATTCTGCAACTTTACTGAATTCACTTGAGTTC
TAACAAACAGATTTTTTTTGTGTGTATCTTTGGGGTTTTTACATAGAGCCAGTTTTTA
GTTTTAATAGAAATGTTTATAATAGTGGATGGAATAAAGACCTTTGTATGATTACTGTGA
ACCACTATCTCTCTATATATATAGATAGATATGAATGAGTATGTGTATAAATCATAAA
GCAAAGGCTTTGAGAAACCAAACTCATCTTTGCTTTCTGTACATACTGTGGCCTTTCTGG
TTTATT

Sequence 217

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAAAATAACATC
ATAAATAACATAAATGAGAAGTTTTCAAGTATTTCAATGTGCCTTGAAAAGTTTCAAACA
GTAATTCACAAATTGGTTAGACAATCATTTTTTTTCTTTTCTTTCTCTCATTTAGT
CTCAGAGCCTAAAAAGAAATGCCTCCAGTCTCTGTTAGCCCCGATGTTTGGAAATGAAAT
AACAGATTCTACCTTAAAAAGAGAAAACCTATGTGGGCTTTTCAAATGTGAAAATTTGT
TCCCTCTTATAAAATATAATCTTTCCCTGCTGCTGGTTTATAAATATGGGCATATAGCC
CAGAGCCATTATAAAGAAAAACAACCAACCACAATAAACTAAGGAGCCTCATCTGATGG

Table 1

CTAAGGGTTCTCAGGAAAAATGAGAAGAGCCCTTTGATCAGGAAAGGAAAAAGGATAG
AGGATAAAACAGTAACCTTTTA

Sequence 218

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCTGAGACTC
AAGACTCTCACTGATTGGAGAGCTTGTGGAAAACAAAACACACCATGCCAATAAATGAGA
TGAAAACTTGAGTTTGCCTTTTAACTATTTATGTTCTAAGTTAAGCTTTGATAACATTC
AAATGTCAAATTCTCTCATTCTTATAAAAAGTTGAATTAATTGCCTGTATTTATTTAGC
AATTATTCAATGTATTTCCAGTATAGGATGTATAGTATAATTAATTTTTGTAAATAAAA
TATTTTACCT

Sequence 219

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTANTCTTGTCTATGAA
GGAAAAGTTTGGCTACTAACAGTAGCATTGTGATGGCCAGTATATCCAGTCCATGGATAA
AGAAAATGCATCTGCATCTCCTGCCCCCTTCTTCTAAGCAAAGGAAATAACATCCT
GTGCCAAAGGTATTGGTCATTTAGAATGTCGGNAGCCATCCATCAGTGCTTTAGCTATT
ATGAGTGTAGGAACTGAGCCATCCGTGGGTGAGGATGCAATTATTTA

Sequence 220

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCCAGATCTGT
ATCACTCCGGAGCAACGACCTGTCTCTCTGAATGATCTCTGGCATGGTAAAAGAGTTAAC
TGTATTTCAAAGGTGAAACAAAACCTTTTTTGTCTTTGTTATGCATGTTCAAATTGATC
AATGGTTCAAGGCCTGGAGTATGCATCAGAATTATCTGTGAAGCTTAGTGAAGTGCTGAT
GCCAGAGCCCACCCAAAGCTTACTGCTTCANAACCACTGGGGACCTGGGCAGTTCTGATG
TGCACGACTAGTCAAGAATCCTTTAAAGGCTGATAAAGCAATCTTGAATCACTGTCAAT
GCAAAGTGGGATGTTCTTATTAATAAGAACTCAAAAAATAAAGTACCTGNCCTGCTC
TAGAACTAGGTGGATCCCCCGGGCTGCANGAATCCGATATCAAGCTTATCGATACCC
GGCCGACCTTTGAGGGGGGGCCCGG

Sequence 221

CCGCGGTGGCGCCGAGGTACGCGTTTCTTGTAAACACGAGGCACCCCAAGATAAGAAGA
CAGATAGAGCAAGGGATGGACATGGTCATCTCCTCAGTGATTGGAGAAAGTTACCGCTT
CAGTTTGATTTTCAAGAGGCAGTGAAGAATTTCTTCCCCCAGGAAATGAAGTGGTTAAT
GGAGAAAATTTAAGCTTTGCATATGAATCAAAGCTGATGCATTATTTGATTTCTTCTAT
TGGTTTGGGCTCAGTAATCCGTTGTAAGTAATGGAAAAGTTCTGAATTTGTCAAGT
ACCTGCCCC

Sequence 222

AGGTACTTACATGGGTGTTTTGATCTCTGTTCTTTCATACTACATTTGAACAGGGCAAAA
TGAACAACTGCCATGTAGGCTAAGAAAGAAATGCTAACCTGTGGAAAGTTGGTTTTGTA
AAATTCATGGATCTTGCTGGAGAAGCATCCAAGGAACCTTCATGCTTGATTGACCACTG
ACAGCCTCCACCTTGAGCACTATTCTAAGGAGCAAATACCTTAGCTCCCTTGAGCTGGTT
TTCTCTGATGGCACTTTTGAGCTCCTAAGCTGCCAGCCTTCCCTTCTTTTCTGGTGCT
CAGGGCATGCTTATTAGCAGCTGGGTGGTATGGAGTTTGGCAGACAGGATGTTCAACTT
AATGAAGAAATACAAGCTAAGGCCTTGCCAGCAACACCTGCCGTAAAGTTAC

Sequence 223

CCGCGGTGGCGCCGAGGTACAGTCACCATCATACTTGTCTCCATTTGGAAAGATAAAGC
TGATCTTATACACTTCTGAAGTTGGTCGAGAGGTGTTAGAGAGATCTTCCAACTCTGCG
ACTCCCCCTGGGCGGGCCAGCTCTGCGGCCACCTTGCCCC

Sequence 224

CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATTACTC
CATCTACCGAGGCAGCGCATGGCATGACTGAACGGCTTGGAACAAACACAGAAATTAGCA
CCACAAACATTACAGGAACCAAATATAATCTGCTATGGTCACACCACAGACAATGCAGGAA
GAGGCTTTTTATTGCTTGTGTGTTTTCAAATCAAGTAGGCACAACCCAGTCCCTCATAA
CAGCCCTCGGGAGTGGACGCACCGGGGCGGGAGAGCGCAGGAGGGAGTGTGCTTGGCTAT
CCTGCCCAGTGGAAAGGAAAGTGACGTGCATTGATCTTAGAGTCTTGGCAACAGACTGT
GGAGGCAATAACAGGATAAAGAAAGCAGGGAGAA

Sequence 225

CCGCGGTGGCGGCCGCCGGGCAGGTAAAAAAGGAGACACAAGACTTACTGCA
AAAATATTTTTCCAAGGATTTAGGAAAGAAAAATTGCCTTGATTCTCAAGTCAGGTAAC
TCAAAGCAAAAAAGTGATCCAAATGTAGAGTATGAGTTTGAAGTCCAAAAATTTGACATT

[illegible]

Table 1

TAATGCAGCTCTTTTAATATAAAGATTCTTGATACAGTGAAATCTCTTATTTCAAGTGTA
AGTTATTCTTCACCCACCCCTTCCCCTGCCATTGTATTTCCCATCTGTTNNANGNGTTN
NANCANTTNNCATTGNNTCGNATNCAGNAGGTNCCTGCCCG

Sequence 241

AGCTCCCCGCGGTGGCGGCCGAGGTAAGTATTGAGTGCTTGTATGCACCAGGCTCTGAAC
TAAACGCGCTCCATATTACCCCCATTAAATTTTACCATTATTCCTGTCTTACAGAAAG
AAAAAAGGCATGGTGAGTCACACAGTTCACAAATGAGGGCTAGAACCAAACCCAGGCACT
GTGACCTGCTACACAGGAGAGGCAGATATGAAGATTTCTTCAAGGGTGCTTATTACAGCA
TCATTTATAATAGCAAATAAAGTACCTGCCCGGGCGGCCGCTCTAGAATA

Sequence 242

CCGCGGTGGCGGCCGAGGTAAGTCTCCAGATCCTGGTGCTGCTTTTGTGGTGGTAGAATG
TCCAGATGAAAGCTTCATTCAACCCATCTGTGAGAATGCCACCTTTCAGAGGTACCTGCC
CG

Sequence 243

CCGCGGTGGCGGCCGAGGTAAGTCTTAAAAATCTATAAATTTAATGCACTGTCCAAGTG
AAATGTCTAGTTGTCTTGTGATTAAGGGGCCAACTTTCCAGGCAGCTAGCAGAGATAC
TATTCTCTTCTCTCCAGCAAATTTGTATTCCTTCGCCCACGCATTCCTGCTATACTAG
ATGGCAGCCAGTGATGGAATAAAGATGTCTGTGGTCATATGTTGAATGTGGCAGCTT
GAAGATGTACCTGCCCG

Sequence 244

CCGCGGTGGCGGCCGAGGTACACGAAAAAGGATTGGAATTGTGTTTAGTTTTGGTGTTT
AGATTATTTCTTTGTGCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTTACAATAGG
CCAGTAGAATTTCTTATGAGAACAGGCTTTTAAAGCACTTCAATGGAGTGTCATTTTTTTG
GTAGCTTCCAGAAGGTGCCAAACAGGTTTCAACATCATATTAATTAGAAATACCCATAAT
AATTATAACAATAAAAAAGGTATAATATGGTACCTGCCCG

Sequence 245

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCTTTTGTCTTTCT
TTTGAAAGTATGAAATGATTTTTACAATGTAAAGAGAGTCTGAGAAATGCAATTGCTAT
TCTTTTATATACTTTTTCAGATTTTTATATGCTTCTTTACTACTTACATCATAATGCA
CAATTTTATATACTGATTTTTTCAATCAATGTATATCATGAGTTTTTAAATAATGCTAC
AATCTTCATACTAATATTTTAAATGGGGAGTGACTGCTTAATTGGCATGAGGTTTCCTTT
TGAGATGAGGAAAAATGTTCTGAAAATATGGTGATGGTTGCACACCATTGTGGAATGGTAC
CTGCCCCGGCGGCCCGAGGTAAGTCTGCTGGGAGAAAG

Sequence 246

GCTCNCCGCGGTGGCGGCCGCGGCCGCGGCAGGTACAGGGTCCCCAGCTTACTCCAGGGATGA
TGTCAGAAAAATGAGGTCTTAAACATGCAGCTTTCCGATGGAGGACAAGGAGATGTCCCTG
TTGATGAAAAACAACTCCATGGTAAACCTGATAAACCTTGGCTTTTCCCTCTGCAGTG
ATAATCTGGAAGGAATATCTGAAGGTCTTCAAATCGCTCCAAATTCAGTGCTCTCCCTAG
ACCTAGAAGGAGAGTCTGTGTCAGAACTTGGAGCAGGACCTTCTGGCAGTAATGGAGTTG
AAGCTCTACAGCTGTTAGAACATGAGCAAGCTACAACACAGGATAACCTTGATGATAAGC
TAAGGGAAGTTTGAATTCGTGACATGATGGGGATTAACAGATGATAGGGGACATATCAA
AAACAGTGAGTGAGACTTGGAGTCTTCGGCCCCCTTAGAACTAGGTGGATCCCCCGGGC
TGCAAGGAATTCATTCAAGCTTATCGATCCGTCCACCTCGAGGGGGGGGGCC

Sequence 247

ATTGGAGTCCCCGCGGTGGCGGCCGCGGCCGCGGCAGGTNCTTTTTTTTTTTTTTTTTTTT
TTTTCTTATCAAAAATATTTATTTNCAAAAAATTAATTATNCTATACATCCTATACTGG
AAATNCATTGAATAATTGCTAAAAATAATNCAGGCAATTAATTCAACTTTTTATAAGAAAT
GAGAGAATTNGACATTTGAATGTTATCAAAGCTTAACCTANANCATAAATAGTTAAAANG
GCAAACTCAAGTTTTATCTCATTTATTGGCATGGNGNGTTTTGTTTTCCACAAGCTNTC
CAATCAGNGAGAGTCTTGAGTCTCANATGTACCTCGGCCGNTTTAGAACTAGGGGATCCC
CCGG

Sequence 248

TTAGGGCNATTGGAGTCCCCGCGGTGGCGGCCGCGGCCGCGGCAGGTACCCAGCACATCTCA
GAGAGATGGAGGCAAGCTGGGTTCTGATGATTTCCAGCTAATACAGGTCTTCTCTCTG
CATGCAGCGCCCCGTAAACGCTTTATAACAGACGCCTCTAGACTTCTGTGGGGGTAAAGT
GAAGGACCCAAAGCGACACAAGTAGTGTCTGTTCACACTTCCACTTTCAAAGCTAACTAC

Table 1

TAGCTGTTCAAATATACTCCATACAGCTTTTACGCAAATCAAAGTGTTTACCTCTCCCACA
CCAAGGGAAGAAAAGATGCAGACTGCCTTTAAAGCACCTGTCAGCAAGGCGAGGGGTTTT
AAAAGGATCAAGCCTTGAGAATCAAAGCAGCAGCAGAAGTGTCATTCTTNCAGTGCTCTC
CTTTCCGGTTC
Sequence 249
TACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACCCATTGGTCTTACAGA
CAAGCATCAGGAACCAGAGGGCCTGGTGGGGCTGGGAGGAAGCTCGGCAGTGACAGCTGA
GGTGCTCATGTCTTCCATCCCAGTGGGATAATGAGCTCATTAGTCAGACGAGG
ACCAGCCCAGAATAGCCAGGAGTAAGCATGTACATTACAGAGCTGTAGCCAGCTTCTGG
GTGGAAATAGCACTATCTGGTACCTGCCCC
Sequence 250
CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCTTTTTGCACACTGTCA
GCAAAACACGTCCCTTTGAGTATCTCCGGCTCACCAGCCTTGGAGTTATTGGGGCCCTGG
TGAAAACAGATGAACAAGAAGTAATCACTTTTTATTAAACAGAAATTATCCCTTTAT
GTTTGCGAATTATGGAATCTGGAAGTGAACCTTTCTAAACAGTTGCCACATTATCCTCC
AGAAGATCTTGTAGATGACACTGGTTTGGCTTATATATGTCAAGACGTATGGAGCGTTT
CTCCCATGTTGCCATGATCTTGGTAAGATGGTCTGCAGCTATCCAAAGAGCCT
Sequence 251
TACCCGGGCGAAGTNANTNNGGGGAAAAANTNCCCCCGGGCCGNC CGGGCANTTTTTACN
GGCACANGGTTTTAAGCCNCNGAGGGTTTTTGAAANCCCCCANGANACCNNANGGNGC
AGGGGGTTTTNNTTTAAANAAGNNGGAACCGCCGGANGANGAGGGANGGNAAAAACACC
CNGGGGAAACCNAANAANCCCNAAAAGGGGNC AAGNGGNAAAAACCCCAAGCNAACCCN
GGGGGNCANGGAAANNNGGGACNAAGACCCAAACCAAAANGGGNNGGANGGCCGCCN
GGGGGACAANNNGGGCCNACNACCAAGGGGAACAANCAANNNGCCGNAANNNGGCCNC
AAGGGCCNNGGNAACAAAAANNNNNCNAACCCCGGGGAANNAAAGNAAGGGGGCAAAAA
GGCAANAAAAACNCGCCCAAAANGGGGAAAGAAAAANNC AAGGGNGGCCCGGGGGG
GGGGNNCCNNGGAAAAAGNAGGGGGNAAAAAAAAAAAAANAAGGANCNNNAACCCN
NNCNAAGGNAAGGGGGAANNNNNAAGGGGNANNNNNNNGGGAAAAAAAAGGGGGGA
NAACCNNGGAAAAAAGC
Sequence 252
CCGCGGTGGCGGCCGCCCGGGCAGGTACAAAATAACATCATAAATAACATAAATGAGAAG
TTTTCAAGTATTTCAATGTGCCTTGAAAAGTTTCAAACAGTAATTCTCACAATTGGTTAG
ACAATCATTTTTTTCTTTCTTTCTCTCATTTAGTCTCAGAGCCTAAAAAGAAATG
CCTCCAGTCTCTGTTAGCCCGATGTTTGAATGAAATTAACAAGATTCTACCTTAAAAAG
AGAAAACTTATGTGGGCTTTTCAAATTGTGAAATTTGTTCCCTCTTATAAATATAATC
TTTCCCCTGCTGCTGTTTATAAATATGGGCATATAGCCAGAGCCATTATAAGAAAAA
ACAACCAACCACAATAAATAAGGGAGCCTCATCTGATGGCTTAAGGTTCTCAGGAAAAA
ATGAGAAGAGCCCCCTTGATCAGGGAAAGGG
Sequence 253
CCGCGGTGGCGGCCGAGGTTGGAAGAGAAGTTACCCCGATGACTTGGTTTGAAGGGGTT
AAGGCACCAAGTCATCCTCTTCTAAAGTGATTTATGATGATGTGTGGAGTTTAAAACTTT
ACCCACCCCAAGAACAGCCCTCTCACTCCTCACTGAGTCCACTCTGAACGTGCTAAAA
TGGAAGGAGGCGGTGTTTTGCTGATCTGTTAAATCTTAGTGAAGTTTCCTTGATTTCC
AGTGGCTGCTGTTGTTTGAGTTTGGTTTGGAGCAAACTGAGGTAAGTCCTAACATTTCT
GGGACTGAATCCAGGCAAGAGAAAGAGAAAAAGANGAAGAAAAAGAGGAGGAAAAAGGT
AGGGAGAAATAAAGGGAGGAGAGAAGCACAGTGAAAGAAAAAAAAGTCC
Sequence 254
GGCCGGTACCTTTAACTCAATTTAATATAACAAGAAATCGTAAATACTTATAACCTATC
TTAGAGAAATGAGTGTGCTGTTTTGAGAGTTGTTTTTAACTGAAAGATTATTTCTAGATG
GGTAGGGGGCTTTGTGCTGGTTTCTGCTTCCATATATTTCCAGTCATTTTATAGAGA
AGATACTCTATGGTAGAATAAGGCCTTTCTTTCTTGGCCAAAGTCTTTACCTATTTA
ACCTTTTGTATATTTCTGACTGCTCACTGTTTCATATTATAGGGGACCAGATTGTGAATAT
AAGAATTCTCCATAACATGAATGAAATTAATTCTGTCCAAGCCAGCATGGTGGCTTCTAT
TAAGGTAGTAACAGGAAGGTCTGAACAATTGGATAAATTTGGAATTTCAAGACAGCTNAA
CTTTTCACTGGCAATTTT
Sequence 255

Table 1

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGTGGTAGGTC
CAGGAAATATGACATTTTCCCCCTTGATGTGTTATTGTTGTTGTTGGGTGGGGTGGGCAT
TTTGTTTATTTGTTTGGTGGCAATCAGTGGTAGTAGGGAGTGGGAGGGCTTATATTGGTT
TTTCCAGCTATTAAGGGGACATATTGTGTCGTTGTGCTTTTCACGTTATAAAATGTTTAT
ATTTACCAGTACCTGCCCCG

Sequence 256

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCATAAGCTTGGAT
TTTAAACACTGATAGTATCTCATGAGTAATGTGTGTTTTGGGAGAGGGAGGGATGCTGAT
TGATATTTACATTGTATGAAATACCATGTTTGAACATCATAGCAATAATGCTATGCTGT
TGTGATCCCTCTCAAGTTCTGCATTTAAATATATTTTTCTTTATAGGAATTGATGTAT
ACCATGAAGTCATTGTGAGTTGTAGTAGCTCTGATGTTGAATGAGATATCATGTTTTAGC
ATTCCATTTTACTGACTAGGGTAGAAGAACACTTTTCTTGGCTACATTTGGAGGATACCC
AGGGAGTCTTGGGGTGTTCCTTATCTGGGAAGCAAAACATTTCACTAGTCTCTTTTTT
TCATC

Sequence 257

CCGCGGTGGCGGCCGCCCCGGGCAGGTACATTTTTTAAAGTTCTCAAAAAATTCTGCTTC
TAGGCAATGTAATAGATATTGTGCGTTGCTCATGTTTTCTATCAGAACCATGATTTT
AAAAAACTATCCTTTCTGTCCCATATATCCCTCATGTGGCCTCCACTTCTACTCTCAG
CTCCAGTGGACCTGACTGCCCTAAAGGTTATTCTAGACCCTTTGCCAGTGACTGGCTCAG
GGATGGACAGGTCTAAGTTACTTTAGAGCAATGAGACCTAAGGATATGGAAAGTGAATTC
TGGGAAAGCTTTCTCATACTAGGACAGGGCCCCCTAGAATCCAGCCTGACTCTTCCGCTGC
ATGTAATGAAGATGCACAAGGCTNCAACTGCTACTGGCAATCATCCCATGACCACGAGG
GTAGCCAGCCTTAGGATGATGCCCCATGTTTGTGGGTGAAAANGGGGGGGG

Sequence 258

CCGCGGTGGCGGCCGCCCCGGGCAGGTACTGCTAGCTGGAAAAACCATATAGAAAACATGA
TGACCATGTTGAGTTGTTGGTGCTGAGGCTGTGAACTCTTTGGCTTCTTCTGATGCCCC
TCTTGAGAACAACTGTACCT

Sequence 259

NNGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACAAAAGCCTGTGAACTGGCTTA
AACCAGTTTACATGCTGGATTCCGACCCAGATAATAATGGATTCATAAATGAGGATTTTA
TTGTTTGGATGCGTACC

Sequence 260

TAGGGCGAATTGGNAGCTCCCCGCGGTGGCGGCCGAGGTGNCTGAAAGTCGATGAAGGAC
GCGATTACCTGCGATAAGCTTCGTGGAGTTGGAAATAAACTATGATACGGAGATTTCCGA
ATGGGGTAACCTAACTGAGCAAACCTNAGNTGCATTTTGATGAATCCATAGTCAAATTAN
CGAGACACCGTTGCGAATTGAAACATCTTAGTAGCATCAGGAAAAAAAAAAAAACCNNAA
AANNANAAAGGCTTGACCT

Sequence 261

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTATAGGCCATATTCCTT
TACGTGGGACATTAATGAAAAGCTGTCTTTTCCAACTGAATGCGCCTATTAATAAAAAA
ATACACCTGACCATCTAATGCTGAAGTCATCCGCCAAGGTGGTACCTGCCCCG

Sequence 262

CCGCGGTGGCGGCCGAGGTACAGATTATGAAAATATGAAGGACTAACAAAGAATTACAT
GGATTATTTATCCCGACTATATGAAAGAGAAATCAAAGATTTCTTTGAAGTTGCAAAGAT
CAAGATGACTGGCACAATAAGAAAGCAAGAAGTTTGGTCTTCATGGAAGTTGCGGGAA
ATTAAGTGGATCTACTTCTAGTCTAAATAAGCTCAGTGTTGAGAGTTGAGGGAATCGCAG
ATCTCAGTCATCTTCCCTGTTGGATATGGGAAACATGTCTGCCTCTGATCTCGATGTTGC
TGACAGGACCAAATTTGATAAGATCTTTGAACAGGTACCTGCCCCG

Sequence 263

TACTATAGGGCNATTGGAACCTCCCCGCGGGGGCGGCCGCCCCGNCAGGGTTTTTTTTT
TTTTTTTTTATACAAAAAGCAACAAGAGTTTAATTTCTTTTTTACATGGCCACAGGCTC
TCTTCAGTCAGGGGAACCTCAGCTGGTGCCCTCTCTTGCAGCTATGAGGCGACAGTGTG
GTGACATGCCTCATACAGACTGTCCCAAGTAAGCCAGGACAAGTCACCATTAATAATCTTGC
ATGAACAGCCCTGGGCACGTGGGAATGTTAAGAAAGAGCCACCGCCTCCTTAGTCAGCTT
AACCACAGCTCCAAACGCAGTTTGTCCAGCTGGCAAACGCCTCAAACACCAATCATGCC
GTCGTGCTCCTATTCTGGGGTTTTATAAA

Table 1

Sequence 264

TAGGGCGATTGGAGCNTCCCCGCGGGGGCGGCCGCCCGGNCNGGTNCAGATTNTATTT
ATCCATAGATAGGGTATCTATACATACATCTCAAGTGCATCTATTCCCCTCTCATT
ATCCATCATGTTCCCTAAATTTTTGTAACTTTACTGTAAAAAAGTGCACTGAACCTCAA
AACAAAACAAAAACAACAACAACAACAAGTCCAACTGATATATCCTATATTCTG
TTAAATTCAAAAGTGAACGAAAGCATTTAACTGGCCAGTTTGTATTGCAATGCTGTAA
AGATATAGAATGAAGTCCTGTGAGGCCCTCCTATCTCCAAGTCTATGATTTTCTGGAGA
CCAAACCAGATACCAGATAATCACAAGAAAGCTTTTTTAATAAGGCTTAA

Sequence 265

CTTAGGGCGAATTGGAGCTCNCGCGGTGGCGGGCGGCCGGCAAGGTACACGGTGGACC
TGGAGTCAGGGCTACACTACCTCCTGCGGGTGGAGCTGGCAGCCCAAGTCCCTGGCCG
GAGCAGAGCTGAAGACGCTCAAGGACTTTGTGACTGTCTTGGCCAAGCTGTTCCCTGGA

Sequence 266

GCGGTGGCGGGCGAGGTACTTTGGGGGAGAAAAACATGATTCCATTTACGGGGAAAAAAG
CCATTGACACTCAGTAAGCAACACTGCCATCTAGTGGAATGGTGACACACCACCAAGAAT
TTCAAGACCCGATAGGAAATGTGAGTGGATTTGGTTTCAATTTTACCACAAAACAGCAC
TTTTAATAAGCTGGTTTTTCAAGAGAACTTCAAGATTTTTTGGAGAACTACTTTTTATCTTT
AAAATGCATAAATGTATGTGTTTTCTCTGTTTTGGGGGGGGTGGTTAAGAATGAAGTTGT
ATTTTTCTTATTAGAGCATAAAGTTCTCTACTTGAAAGGTAGAAAACACTTTGGGGCAAC
CTGCCTCCTTGAACATCCATCACTTCTGCTTGACAGTCTAACAGCACCCCTGATTTTAAAC
AGACAGTTTATAAAGGAAGCAAACTC

Sequence 267

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCGGCCGGGCAGGTACTCTTTGAG
GACATTTTGTGAGATTAACATAACAGTGTAGTGTAGTTTTTAAATTCAGTTGAAAA
GTTTAGCTGTCTTGGAAAGTCAAATTTATCCAATTGTTTCAAGCTTCTGTTACTACTTAATA
TGAAGCCACCATGCTGGCTTGGACAGAATTAATTTCAATTCATGTTATGGAGAATTTCTATA
TTACAAATCTGGTCCCCTATAATATGAACAGTGAGCAGTCAGAAATATACAAAGGGTTAA
ATAGGGTAAAGACTTTGGCCAAGAAAGGAAAGGCCTTAGTTCTACCATAGAGTATCTTCT
CTAATTAATAATGACTGGGAAATATGGAAGCAGAAACCAGCACAAAGCACTACCCATCT
AGAAATAATCTTTCAGTTAAAAACAAC

Sequence 268

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCGAGGTTTCATGGTCAAGCTCTAAGA
CACAACGAGCTCTGTTATTCAAGAAATCAATTCAGTGGATTTCCAGTTCCAATTCCTGA
GAAC TAGGGTAAGGGGGAGAGCTAATGGTTGCTTCCCTAAGGCCTTCTGGGTTTATTAGTT
CCATTT CAGGACATGACAAGAAATGTACCTGCCCG

Sequence 269

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCGGCCGGGCAGGTACCTTCTA
AGGTAGTTAACACCACACAGGCTGATAACTCAGGGCAAGAGAGAGGCCTGGAGAGTTGAC
AAGAGTGTGAAGATACTGGAGAGGGGTTCAAAAATAGGATCAATTTCTTAATACTATTCT
TATTTCTTGCTAATAATTTGTCCTTGTAATTATAGTGAAGTAATGGTCTGGATATAAATG
AGATATGGTTTTGTGAGGGAAGAAACATAGAGGATTATTCTTAACAACGTGTGGCAGCCTT
GCCAATATGGAACC

Sequence 270

CCGGGGTGGCGGCCGCCGGGCAGGTGCGNTCTCAGCTCATTGCAACNTNTGCCTTTNTA
AACATGCTATTAAATGTGGCANTGAAGGANTGTTTTANTGTNATCTTGCTATTAAAGTGG
TAATGAATGTTCCAGGATGAGGATGTTACCCAAAGCAAAATCAAGAGTAGCCAAAGAA
TCAACATGAAATATATTAAC TACTTCTCTGACCATACTAAAGAATT CAGAATACACAGT
GACCAATGTGCCCTNAATATCTTATTGTTCAACTTGACATTTTCTAGGACTGTACCT

Sequence 271

TTGGAGCTCCCCGCGGTGGCGGGCGNGGTACATCCACAGGAGGAATCGGACGAGAGGATG
TGACATTCGGTCCAGGAGAGAAAGAGCAGTTTCTGTAAAGATGTAAACAAATGGATTTCC
AAAGTCTACATGACATTCATTTTCAAAC TCCACCAGTTGAATTTCTTTTTTCCCTTA
AGAAACAGGTGATGTCTTGGAAAACAGCTCCTTATGTCTCTCTGTGCATCTCCATTTTCC
TAGTCTCTGGAGTCTCAAAAAGAGTGGCAAGCACTTTACAGTAGTAACTGAGGAATCAG
AGTCTCTGCTTCAGCGATATCTAGTTTGACCTGCCCG

Sequence 272

Table 1

CCGCGGTGGCGGCCGAGGTACTTGTCAAATGAAAGAACAGGGATTGCCAGACCTTCAAGG
CAATGGGAAAGGAGCAAATCTGCAAAGGTAGGATCTCTTTGGAAGGCAGGTATTGGCCAC
CAAGTCAAACCTCTTGAGTCTTATATTCTGATTGGGATGATCTCACATGGATGTTTCATCT
CTTATATGTGAATGCTCATTGTGAAAAATAGTAAGAGCCAGCTAGGATATTTGGATTCA
GTCAGGCACCATCAGAATAGTGCAGTGAAGGCCAACTGGCCACAAGACAGAGGAATGT
TTTCAGTTTTCTGGTTTTCTCTGGTCCATGATAAAGCTCGGAGTAACCTCTCTATCAAG
ATGGGGCTATACCTTCNCATGACAGAGGCTGGCAATTGAGCTACCCAGCAGAACGTGTGC
TCTCAAAGGGGAAGTCAAGGGAAC

Sequence 273

CCGCGGTGGCGGCCCGCCGGGCAGGTGAGGCAAGGAGAACTGTGCTATATTGTTGGTGCT
TGCTGTTTTGCTGGACATCTTCAATTATTGTTTTACCTGAAATCAGTAAGACTTTGACA
GGATATCACCTGAATTATTAATGAATGCCAGGAAGTAATTTCTTCTCATTCTTCTAAA
ACTACTGCCTTTCAAAGTGCACACACACGCTCCACATACACTGCATTGCTGCTCCAGT
ATAAATTACATGCATGAGCACCTTTCTGGCTTTTAAGCCAATATAATGGGCTGCAAAATG
AAGACACCAGAGTGTATGCATACAAATCTCACTGTATTAAAGATGCAGGTTTTCTAATTG
TACCTCGGCCGCTCTAGAAGTAGGTG

Sequence 274

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTATCAAAAAAT
ATTTTATTACCAAAAAATTAATTATCCTATACATCCTATACTGGGAAATCCATTGGAATA
ATTGGCTAAAAATAACAGGGCAATTAATTCAACCTTTTTATAAGNAATGGAGAGNAA
TTGACATTTGNAATGTTATCAAAGCTTTAACTTGAACATAAATAGTTAAAGGGCAA
ACTCAAGTTTTCATCTCATTATTGGCATGGTGTGTTTTGTTTTCCACAAGCTCTCCAA
TCAGTGAGGAGTCTTGGAGTTTCAAGAATGTACCCTGCCCGGGGCCGGCGCTCTAGAAC
CTAGGTGGGATCCCCCGGGGCTGCAGGGAAT

Sequence 275

GCGGGCCCGAGGTACACACCGAAAAGGTGGTGGTATTTTTACCTTCCCAAAGGTGGTGG
ATAGGGTTTTATTGGGCCCTTTTNTAAAAAGGAAATANAAAAACCAAAAAAGTTT
AAAAATAATTGAAAAAGTTTTAAAAACTTTTNTTTTACCAGGAAAAATAAAACC
TTATTTCCAATTTTTTAAAAANGGTTAGGAGGAGGAGGANGAAAAACCATTTTTAATTT
CCTTTTCTAATCAATTGGAAACCATCCAGGTTCAAACCCAANGCCTTTNACAATTTTT
TGGGGGGCCAGGGGNATTTTTTTTAAAGGTTANTTAAAAATTTTTTTTTTAAAGGAAA
ACCTTTAATTTTTTAAATTTTTTAAAAAAAANGGGGAAAAGGAAACAGGGGTTTTTA
ATTTTTTTGGGCCAAGGAAAAAANGGTAAAAAATAAGGAAGGAAATTAATGGCCCAA
AAAAATTTTTGGTCCTTTTTTAAAGGAATTNGGGGCCATTAAACCAAAAAAATTTTAAAA
AAAAACCAACCAAGGTTACCCCTTGGCCCCCGGGGGCCGGGCCCGCTTCTTAAGGAAAC
CTAAGGGTGGGGGATTCCCCCGGGGGGGCCTTGGCCAAGGGGAAAATTTTCCGGANTA
TTCCAAAGGGCCTTTAATCCGGATTACCCCGGTCCGGACCCCTTCGGAGGGGGGGGGGG
CCCCCGGGTTACCCCAAGCCTTTTTTTGGTTTTCC

Sequence 276

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAACATAT
ATACATGTGCATATATATGTAATTTATATTTATATATAATATCTTTATATAGATAGATA
TCTGCAGACAGGTTATTGATTATAGAGACCCAAGAAAGCAACTCAATAATTGTTCAAAGT
TTTCTCACTGACTGCTGGTGTGTAGTTAAGAAGCCCCATTGTTGCACTCAGAATG
CCTTATCTTCTTTAATGGAACACTTGATGTGGAATTTAAGTCTGAGAAGTGAGGTGCC
TTCTGAAGAAGAGATTTTAGAGACTCCCTTCCTCTATAAGTTGGAATGACCAGAAGTCT
TAAGTAGACCACAGTTAGCTGACTTTGACATTGTAGGACGTAATCAGCTTTTAAACCAAT
TATAGAACTGGTAAAGGGTAAGATCAAATTTGCCAAAAA

Sequence 277

CCGCGGTGGCGGCCGAGGTACAGCACTGGGCTTTATAAAGACTGCACTCAGAACCACACT
GCACAGTCCAGTTTTTTAAAAAGCTGCTACATGACAGACAGGTAATCCCACTGAGTGAGT
TTTGAGAAACAAATCAAACGAAGTAAACAAGAAACATAAAAAACCAATAGCAAATGAATA
AAAGCCTGTTCTTGAACCTATTCAACTTTTGCCAAATTCCTACCAATCACTTGCTTTTT
AAAAGAAATGTATAATAGCCAAAAGAGAAATTATGTCCCTGTTGTACCTGCCCGGGCGGC
CGCTCTAGAAGTAGGTG

Sequence 278

GAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTTTTTTTTTTTTAAGTTTAAATTTTA

Table 1

ATATTTATAAATTTAAAAATTTTACACGTGCTGAGTGGTAGCAGTGCTAACATTTTGT
GACCATTAACACAAACTCACTGCATAGAGCTTCTTTCTTTGTACCT
Sequence 279
AGGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAACAATAGCTAATACCGGAT
ATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAGCTTCACCTAAAAATGG
GGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTTTAGCC
GGCCGAGAGGCTGTACCTGCCCCG
Sequence 280
AGGTACAGTGCCAGACCATGACTGTCAATCGTCAGATGAAGCGCTACAACGTTCCGTTTC
TAACTTTTATTAACAAATTGGACCGAATGGGCTCCAACCCAGCCAGGGCCCTGCAGCAAA
TGAGGTCTAACTAAATCATAATGCAGCGTTTATGCAGATACCCATGGGTTTGGAGGGTA
ATTTAAAGGTATTATAGATCTTATTGAGGAACGAGCCATCTATTTTGATGGAGACTTTG
GTCAGATTGTTTGGATATGGTGAGATTCCAGCTGAATTAAGGGCGGCGGCCACTGACCACC
GGCAGGAGCTAATTGAATGTGTTGCCAATTGAGATGAACAGCTTGGTGAG
Sequence 281
CCGGGCAGGTACTTGTTTATAGACTCAAAACATGATGAAAATTCATTTTCATTGTCTTCAC
TGAATAGACTTAACCTTGACAGTAAGCTTAAAGCATTAGTGTCATTTAATTACATGTCTG
AGGAATTTATGCTAACTAGATTTTGGGCTTTTGCAGCGAATTTTAGTCGGGGCCCTCATTG
CTGAGCCCAAGTGACCCCTTTCACCTCAGCTTCCCAAGTAGCTGGGATTACAGGTGCACAC
CAACTGTGCTTTGCAGTTTGTGTTGTGTGTGTGTGTGTGTGTGTGTGTATTTGTTTTT
TTACAAGCCCAACATCATAGCTTTGCAGTT
Sequence 282
AGGTACAGCACTGGGCTTTATAAAGACTGCACTCAGAACCACACTGCACAGTCCAGTTTT
TTAAAAAGCTGCTACATGACAGACAGGTAATCCCACTGAGTGAGTTTTGAGAAACAAATC
AAACGAAGTAAACAAGAAACATAAAACCAATAGCAAATGAATAAAAGCCTGTTCTTGT
AATTTATCAACTTTTGCCAAATTCCTACCAATCACTTGCTTTTTAAAGAAATGTATAA
CAGCCAAAAGAGAAATTATGTCCCTGTTGTACCTGCCCCG
Sequence 283
ATTGGAGCTCCCCGTGGTGGCGGCCGCCGGNCAGGTACGGATACAATTCCGCTGAGTTA
AGATTCCAAATCTAACCTCTCCATCACACGCCCCAGAAAGGACAGTAGCCAGCTTCTCT
GGATGCTTTGCCAAGCAATTGACTCCATCACGGNGACCATCCAGCGAAGCAAGGAANGGT
TTTGCAAATACTCGNTCCAGTTTGGTAGCATTTAAAGCTCTTATATATTCTCGNNGGAC
TCAAAAGGATGTAAACCT
Sequence 284
AGCTCNCCGCGGTGGCGGCCGAGGTACTTACATGGGTGTTTTGATCTCTGTTCTTTTCATA
CTACATTTGAACAGGGCAAAATGAACCTAAGCTGATAGGCTAAGAAAGAAATGCTAAC
CTGTGGAAAGTTGGTTTTGTAAATTCATGGATCTTGCTGGAGAAGCATCCAAGGAAGT
TCATGCTTGATTTGACCACTGACAGCCTCCACCTTGAGCACTATTCTAAGGAGCAAATAC
CTTAGCTCCCTTGAGCTGGTTTTCTCTGATGGCACTTTTGAGCTCCTAAGCTGCCAGCCT
TCCCTTCTTTTCTGGGTGCTCAGGGCATGCTTATTAGCAGCTGGG
Sequence 285
TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTACATGGGTGTT
TTGATCTCTGTTCTTTCATACTACATTTGAACAGGGCAAAATGAACCTAAGCTGATGCTAG
GCTAAGAAAGAAATGCTAACCTGTGGAAAGTTGGTTTTGTAAATTCATGGATCTTGCT
GGAGAAGCATCCAAGGAAGTTCATGCTTGATTTGACCACTGACAGCCTCCACCTTGAGCA
CTATTCTAAGGAGCAAATACCTTAGCTCCCTTGAGCTGGTTTTCTCTGATGGCACTTTTG
AGCTCCTAAGCTGCCAGCCTTCCCTTCTTTCTGCGGTGCTCAGGGCATGCTTATTAGCA
GCTGGGTTGGTATG
Sequence 286
CCGCGGTGGCGGCCGAGGTACTTACATGGGTGTTTTGATCTCTGTTCTTTTCATACTACAT
TTGAACAGGGCAAAATGAACCTAAGCTGATAGGCTAAGAAAGAAATGCTAACCTGTGG
AAAGTTGGTTTTGTAAATTCATGGATCTTGCTGGANAAGCATCCAAGGAAGTTCATGC
TTGATTTGACCACTGACAGCCTTNCACCTTGAGCACTATTCTAAGGAGCAAATACCTTAAC
TCCCTTGAGCTGGTTTTNTGATGGCACTTTTGAGCTCCTAAGCTGCCAGCCTTCCCTT
CTTTTCTGCGGTGCTCAGGGCATGCTTATTAGCAGCTGGG
Sequence 287

Table 1

AGGTA CT TACATGGGTG TTTTGATCTCTGTTCTTTTCATACTACATTTGAACAGGGCAAAA
TGAAC TAACTGCCATGTAGGCTAAGAAAGAAATGCTAACCTGTGGAAAGTTGGTTTTGT
AAATTCATGGATCTTGCTGGAGAAGCATCCAAGGAAC T CATGCTTGATTTGACCACTG
ACAGCCTCCACCTTGAGCACTATTCTAAGGAGCAAATACCTTAGCTCCCTTGAGCTGGTT
TTCTCTGATGGCACTTTTGAGCTCCTAAGCTGCCAGCCTTCCCTTCTTTTCCTGGGTGCT
CAGGGCATGCTTATTAGCAGCTG

Sequence 288

AGGTACAGTAAACATTATTCAGTGAGAGATCAGAAGGAAACAAATGGCATCTTTTCAGAA
CGCTGTCAACTGTTCCCAACAACCAAGTCTGTTTTCCAAGTTGCACAAGTGCTTGGAA
AACTCTGAAACAATTCTCTTCAGAGTTTAAAGGCTTCAGAGTATAGGTGATGCTTCCTAA
AACAGAAGCCTGTATTAACATCACAAATTGGAACCTATTCCAAAGCCTCTTCTTAGAGA
AAAAAAATAAAGAAATAAAAAATAAAAAATGTAAAGAAGGTCATGAAAAATTCACATGC
AGCTAATTATCGTAAAAATATCAAACAC

Sequence 289

AGGTACAGCATTGATGAACACTTTTCAGCCGAAGCAGATTGTCAAGTCTCTTATCCCTTCG
TGGAACAAACTGGTTTTCTTTGAAGTATCTCCTGTGTCTTTTACCAGGTGTCTGAAGTG
CTGTCTGAAGAAAAGTCACGTTTGTCTATAAGTGGCTGGTTTCATGGTCCATCATTGACT
CGGCCTCCCAACTACTTTGAACCCCCCATACCTNGGAGCCCTCACATCCCAAGATCAT
GAGATTTTGTATGATTGGATCAACCCCTACTTATCTGGACATGGATTACCAAGTTCAAATT
CAAGAAGAGTTTGAAGAAAGTTCTGA

Sequence 290

CCGCGGTGGCGGCCCGCCCGGGCAGGTACATTGTGGTAGGTCCAGGAAATATGACATTTTC
CCCCTTGATGTGTTATTGTTGTTGTTGGGTGGGGTGGGCATTTTGTATTTGTTGGTG
GCAATCAGTGGTAGTAGGGAGTGGGAGGGCTTATATTGGTTTTTCCAGCTATTAAGGGGA
CATATTGTGTCGTTGTGCTTTTCAGTTATAAAATGTTTATATTACCAGTACCT

Sequence 291

GAATACGACTCACTATANGCGNNAATCTGANAGCTCCACCGNGGTGGGCGAGCCCCGCCCG
GGGCAGGGGTTTTTTTTTTTTTTTTTTGGTAAATTTTCAATAAGTTTAAATTTTAAATAA
ACCCAAGGGTTTTACAATTAACCAAGGTCAACGGTGGAATGGAAACCTTTTTTTCTTTT
AAATGGTCAAGCNTNAAAACCTTCAAAAAACCAAGTTTGTGTTTTCAGGGTTTCAA
AAACCCAAAAACCAAGGCTTCNTTTTCAACGGTTTTTCCCAAGAAAAGCCTGGCCCTTCAACA
GGCTTAGGCCACCAAGAATCAACAAGGGAAGAATTTAACTGGTCNTTGGTCCCATTAAACC
CCAACCCAAAGAACCACCAAGGGAACCTTGGAAACCACCCCAACACCACCCCAAGTTTTT
TTCAAAAAAGGGAAGGGGGGAAACCTTTACCAAAATGGAATGGGCTTGGGCCTTGGCC
CCAAGGGGGCCAAGGCCAATTGGAAGTTGGGTAATTCNTGGGGGGGACCTTCAAAAGGC
CTTGGGGGAAGGTTTTTTTTTCCCAAGGGGGGGGAGGNAAAAGGGCCCTTGGGGGGAAAG
GCCTTTTGGTGGGGCCAAANGGGGGAAAAGNTTGGGGGNAAA

Sequence 292

CCCGCGGTGGCGGCCGAGGNACNGANTNATTTTCNGNATTACTGAACNCCTTTGAACTAT
TTTGAACNTGAACTCTTCTCTGAATAACTGCCGAAACTCAAAGATAAATAATNAGTTGA
TGAAGGTTATCAATTAATAAAATAACNCAGACCANTCTTACCAAACCTAAATACATTNT
AAAAAATTTTAACTGGCAATGATAAAAAGAAATGTTGAGTACCTGCCCG

Sequence 293

CCGGGCAGGTACAATAAAGTTCACCCACCCTGCAC TTTGGCCCTTAGATCAATCCTAAGT
AGCCATTGCCAGTAGGCCAAGTTTAAATCAGAGGACAGTGCCTACCAGTAAATACTGAATA
GTTACAATAGTTATGTCCATCCAACCAGTAGCAGATGAACAGCTAATACATCATGATGCT
ATGCTCTCCTAACAGGGTCCCCTCAGATCCTCAGTGAGCACATAAAGAAAGGGAGGTCAT
ATCCCTTACATCTCTACCAGGTATTAACACCTAACTACTCTCTAGCCAGAGGCAATTCCC
TTTATTTCTTACTCTCGTCGCTTCTCT

Sequence 294

CCGGGCAGGTACATAACATTTCAAATATAAGTGGAAGGATCATCAGTAGTGTTATCAAAA
TGCATAATACAGAACTTTTTAAGAAAGGATAAAAAATTACACTCAGGACCCATAACTCT
TCCTCATTATAAGCATATGTAGTGATTCAATTCATGCAGGTTTTATATGTAGATAGGATT
TTTTTTTCTTTTCAAGAATTCATTGTAGCCATGAGATGAAAAATGTATTATGGTAATG
GTATAGCTTTCTTCTATTTTGCTTTTAGTGTTAGGTTTGCTAAAAGCTATTAAAAATTC
CCAAC TGACATAATGTGTTTTCAATAAGGAGGACGCT

Table 1

Sequence 295

AGGTAAGTATTTAACTCTGTATTACTGAACCTCTTTGAACCTATTTGAACCTTGAATC
TCTTCTCTGAATAACTGCCGAACTCAAAGATAATAATTAGTTGATGAAGGTTATCAATT
AATAAAATAACACAGACCAGTCTTACCAAACCTCTAAATACATTTTAAAAAATAGGAACTG
GCAATGATAAAAAAGAATGTTGAGTACCTGCCCG

Sequence 296

CCGCGGTGGCGGCCGAGGTACAGCACTGGGCTTTATAAAGACTGCACTCAGAACCACACT
GCACAGTCCAGTTTTTTAAAAAGCTGCTACATGACAGACAGGTAATCCCACTGAGTGAGT
TTTGAGAAACAAATCAAACGAAGTAAACAAGAAACATAAAAAACCAATAGCAAATGAATA
AAAGCCTGTTCTTTGTAACCTTATTCAACTTTTGCCAAATTCCTACCAATCACTTGCTTTT
AAAAGAAATGTATAACAGCCAAAAGAGAAATTATGTCCCTGTTGTACCTGCCCG

Sequence 297

CNCCCCGCGGTGGCGGCCGAGGNACAGNACTGTTTTTTNNAAGACTGCACCCCAAGAAC
ACACTGCACAGTCCAGTTTTTTAAAAAGCTGCTACATGACAGACAGGTAATCCCACTGAG
ACGAGTTTTTGAGAAACAAATCAAACCGAAGTGNACNNGAANCATAAAAAACCAANTAGCAA
ATGAATAAAAGCCTGTTNTTGNAACCTTATTCAACTTTTGCCAAANTCCTACCAATCACTT
GCTTTTTTAAA

Sequence 298

CCACCGCGGTGGCGGCCGAGGTACTATGTCAGNTTTGTATGTAAGTACTAGCTGTCAGGTCTT
TCCCGTTGCCTCAGCCTTTCTACACAGACTGGCCTTCAACTTCCCTGAGTCCAGAAGT
AGACTCTTTTCACTCACTCTATTTCAGGAATCTGCAGCAGGAAAAGCTGCTTCTCTATTAACT
ATCTATGACTGAAGCACAGATGTGTCTAATAGAAATCACCTTCACCCAAAAGCTGGGTG
CAGAAAGGGAAGCCCTTAGCTGACTATAGGAGGTGCCTCTTGTGGCTCCACGTGCTTCTT
ACACACCACCCCCAGCTTGAGCGATGCCTCAGCCAGCTCACCTCATCCACACAATCGC
TAGAAA

Sequence 299

CCGGGCAGGTACCATATCTCCTGGCTTCTTCTACATGGGTCACTTAGTTAAGAGGGAGG
CCAAGGGAGTTCCGATTTTCAGGCAGTGTGTGGCAGGGTTACTGTCCTAGCAACCTGGCTA
CTCCTCACTGTGAACGTTTCTCATAGGTGTCTATGGCAGGATGAAAAACATATTTGCCT
CCCAGTGAAAGATGGCACAGGCTTTTGCCAGCCAGGTTGGCAAGAGAACAGAACTTTA
ACCCCTTGCTCGACAGGTTTGAGTTCAAGGGGTTGGATGCTCCAAGCAGAGGGGCCAAACC
CTGATTTATGAAGCATGCTAGGTCAACAGCCAGTCAGACCA

Sequence 300

CCGGGCAGGTACCTAAGGGGTTACTTGTTTAAATGGGATGGCATTGACTTTTTGAAATCA
AGTGGACTGAGTCATTGATAAAACATTTCTAAGAGTGGGGCTAGAGAACATACTTTACAT
CTGACATCCTTTGGCCTAACACATCTATTATTATAGTGCTCAGCAGTGTGGGCATTGAA
GAGGCGCAGAATGCTTTGAAAGAACTAATCAGAATCTTGGAACATCATGATCATGCCAT
TCTTAAGTAAATCAACTATTTTCAACACTGAAGAAAAATGAAACATTATTTAGAAAACAA
TGAGATTACAAGTTCCAAACTCAGCCA

Sequence 301

CCGGGCAGGTACCTCTACCTCCTTCCCTGTGCGAAAAGTCACCACTTTAGTCCCTGGCC
ACCAGCACACCCCAGGAGGGTGAGTGGCCTGAGGTAGTTACCGGCACTTAAACTCCCTT
GCTACCGATCTGGAACCTCAAGCCCCAAGACATCCCTTAGATGATCTGAATACGCATTCA
GGGACAGATCTAGGCAGTTTCTAAACAACACTTAGACTGGGGTCTAACGTTGACAAATCC
TTCTAGAATTTGCCTCTTTGGGACTGAAGTCTAAGGGGCTGAGACCAAGAAGGGAGAGCA
CAAGACTAACTTTGGTCTCTTGACCTTTT

Sequence 302

AGGTACCTTCTAAGGTAGTTAACACCACACAGGCTGATAACTCAGGGCAAGAGAGAGGCC
TGGAGAGTTGACAAGAGTGTGAAGATACTGGAGAGGGGTTCAAAATAGGATCAATTCTTC
TAATACTATTCTTATTTCTTGCTAATAATTTGTCCTTGTAATTATAGTGAAGTAATGGTC
TGGATATAAATGAGATATGGTTTTGTGAGGAAGAAACATAGAGGATTATTCTTAACAACT
GTGGCAGCCTTGCCAATATGGAACCAATTTTCAAGAGTTTGTGAAATGGTACCTGCCCGG
GCGGNCCGCCCCGGGAGGTACAGTGACCTAAAGT

Sequence 303

AGGTACTCAAATGCATTGATTTTTCCAGCTGGCTTTTCAGAGCAGTGCTAGTGAGAGGCA
CCAGTGTAACCTGAAGCAGGAATAGTGATGGCTCAGGTCCCCACAGGTAGCTCCTCCATA

Table 1

CCTGTGGGACTCAAAGGCTAAGGGCACTAACTCATAGGGCTCAAAGGCTGGATGAAGAGA
ACAATCAATGTGTTAAATGTCCTTCAGACCTAGGTCAGAGGACAAATTTTGACTAATTCT
TTTGACTAATTCTTTTTGCAACTTCTCTCAACAGGTACCTGCCCG

Sequence 304

CCGGGCAGGTACCTATTCACCATTCCAACGTGAAGAAGCTCTGCAGTAGGAAAAATAATT
AACACACTTATAGTCTACTGCCTATGTAAGGATCAGCTCCGGCTAAGAGGCCAAAGATGG
GTGACATCGTTATGCTCTGCCTTTATTTTTCTTTCTTACCCACTTAGCTTCCTAATTGG
AGGAAGGAGGCGTGGTAAAGGTATATGAAGACTATGGTTTAATTAGACCAGAAAACACTG
TCATAATCTCTGGGGTCATCAGAATGTCCAGTTTTGTCTTTGGGCCAAGATAAGGGCAGT
GGGATTTATGATGTGTTGTTTATAGTCTGAAACTACTC

Sequence 305

AGGTACGCATGTCGCAGGGTTAAGTATGATGCAGAGGTTAAAGTCTGTTTGAACAAAAAC
AAATGCCCCGGGAAATTTTCATAGCTATAAAGTTAATACTAAATTTTGTTCACTAAGAGG
ACCTTTTCTATGGATTTCTTTCATCTCTCAGTCACACTGCAAACCTTATCTGAAGTGCCT
TCCAAGTGTAGTTAGAGAATAGGAAGGAATGTAATTTTTTTTTTAAATTTTGT
GTTTGTGTTGTTGTTTTTAAAAACAGCCCTTATTAACCTCTCCTTCCACTGATTCTAC
TGTAAACTCATAAAAGCCTTTTATAGAAAGCAAATTC

Sequence 306

CCGGGCAGGACTAGGGTGGACTAATGTCTCACTTCAAAAAAATATGAGTGTAGTATACT
TGGCCTAAAATTGTTACTCAGTGTTACTAAAGTGTAAATCATTTTCCACATCTCCAAATAT
ATTCCAAGTCTCTGAAATACTAGTGCATTGGGAGGTAGAACATTTTCGAGCTTCATGTCT
GTAATGGTTTTCTTTTACTGTCAATTCAGTAAATCAGAATAAATGATTGATGTAATACT
TAAAAAAAAAAAAAAAAAAAAACCT

Sequence 307

CCGGGCAGGTACATTCAAATCAGGACACCTGGGTATATGGACAAAGATATCCTACAATTA
AAATGGAATAGAAGTTAAAAAAAAAATTCAGTCCCCTACACCACAGGCCTCAAACATGCT
TGCTGATGGATTCTGGGAAGGTTTTGGATGAAGGACGGAGATATGGGAGGAAAGTGAGAA
AACAGTGGATTCCCTTTGAAAAGTATGCTAGCAGACAAGCATTGGTTTTATGAAAGAGG
CACTCTTATAGAGAAAGAAGCTAGTATGTGGTGATAAAAAAGCCCCTAAATCATCACCAG
AATGTCTATCCATGATTGTACCTCGGCCGCT

Sequence 308

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTTAAGTGAAGCTGTGAAGCTCCTTTCTATTACTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCCAGTCTT
AAAGGTAGGTTAGGGTACCTGCCCGGGCGGNCGNCCGGNCAGGNCATAATACATGATTGA
ATACATGANCGNATNTAACATGNNTTTTTTCTGNNGNGGNCAAATAACATNCTNAAA
GNNGCANCTGCNNATCAGNNACCCTTAGAAAA

Sequence 309

ANCCCCCGCGGNGCGCGCGGAGGTACGCATGTCNNTTGGNNNAGTATGAANCACNGGTT
AAAGTCTGTTTGAACAAAAACAAATGCCCGGGGTAATTTTCATAGCTATAAAGTTAAACAAC
TAAATTTTGTTCATAAGAGGACCTTTTCTATGGATTTCTTTCATCTCTCAGTCACACTG
CAAACCTATCTGAAGTGCATTCCCAAGTGTAGNTAGAGAATAGGAAGGAATGTAAAT
TTTTTTTTAATTATTTGGTTTGGTNGGTNGGTTGGTTTTTAAAAACAGCCCTTATTAAC
TCTTCCTTCCACTGATTCTACTGGAACTCATAAAAGCCTTTT

Sequence 310

CCGGGCAGGACTAGGGTGGACTAATGTCTCACTTCAAAAAAATATGAGTGTAGTATACT
TGGCCTAAAATTGTTACTCAGTGTTACTAAAGTGTAAATCATTTTCCACATCTCCAAATAT
ATTCCAAGTCTCTGAAATACTAGTGCATTGGGAGGTAGAACATTTTCGAGCTTCATGTCT
GTAAATGGTTTCTCTTTACTGTCATTTCAGTAAATCAGAATAAATGATTGATGTAATACT
TAAAAAAAAAAAAAAAAAAAAACCT

Sequence 311

CCGGGCAGGTACATTCAAATCAGGACACCTGGGTATATGGACAAAGATATCCTACAATTA
AAATGGAATAGAAGTTAAAAAAAAAATTCAGTCCCCTACACCACAGGCCTCAAACATGCT
TGCTGATGGATTCTGGGAAGGTTTTGGATGAAGGACGGAGATATGGGAGGAAAGTGAGAA
AACAGTGGATTCCCTTTGAAAAGTATGCTAGCAGACAAGCATTGGTTTTATGAAAGAGG
CACTCTTATAGAGAAAGAAGCTAGTATGTGGTGATAAAAAAGCCCCTAAATCATCACCAG

Table 1

AATGTCTATCCATGATT

Sequence 312

AGGTACAGCCTCTCGGCCCGGCTAAACATCATCGTCTTGGTAGGCCATTACCCTACCAAC
TAACTAATGTTCCGCACCCCCATTTTAAAGTGAAGCTGTGAAGCTCCTTTCTATTAGTCA
TCATGCGATAAATAACTATATCCGGTATTAGCTATTGTTTCCAATAGTTATCCAGTCTT
AAAGGTAGGTTAGGTACCTGCCCCGGCGGNCNCCGGNCNGNCATAATACATGATTGA
ATA

Sequence 313

AGGTACAAACAGTAGAACAATACTGACAAATGCAAACCTTAGTCACATGTGCTTTAATAAC
TGACAATACATTCAAGCAGGTTTTTCTAATTCAAGTGTATAGCACATATTCAAATAATAG
GAAACAAATCTCATGCAAAGTAAATAAATCTTGATGTNTAAAACTGATTAGAACTAGAA
AAGAAGTGGACATGTTTTATTATCTTTGCATTACGTTCTAACAAAAGCAGATTATCAGGG
GCTCTTACTCACTTGCCATTCTGACATGAGCACTATAAGTGAATACTATGAGTTCTACA
AACAGAACATTTTTCCACATGAATTTGACTTGCAA

Sequence 314

CCGGGCAGGTACGCCGTTTCTTGTAACACGAGGCACCCCAAGATAAGAAGACAGATAGA
GCAAGGGATGGACATGGTCATCTCCTCAGTGATTGGAGAAAGTTACCGGCTTCAGTTTGA
TTTTCAAGAGGCAGTGAAGAATTTCTCCCCCAGGAAATGAAGTGGTTAATGGAGAAAA
TTTAAGCTTTGCATATGAATTCAAAGCTGATGCATTATTTGATTTCTTCTATTGGTGG
GCTCAGTAATTCGGTTGTAAAAGTAAATGGAAAAGTTCTGAATTTGTCAAGTACCT

Sequence 315

AGGTACATTTTGTATTAACCTGAACTCAGCTAAACAGTAAACCTGTTTTACTTAATCCCT
GTCTTGACTACCAGACTATCATGATGTTTGTGGAAGTGAATTCCTGCTCTCCATTTCT
CTCTGTCCCCCAAGTTGAAAAATATAACCCAAATCTTTAGAATTTTGCCTCTCATTCCCT
GCAACTCCAGTGGGCTAGAATCTTGATCCAGTTTTCTCCAGACTAGATTTCAAGCTACTC
TGCATGATGTAGAACATGTAACCATGTAACCTCATCAGCTACCTTTTCCCTTTTGACTTT
TCCTGTTGCACACAGTTCAGTCTGACTATC

Sequence 316

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGAATGCGATCACT
GTGGGAAGGCCTTCAGCATAGGCTCCAACCTGAATGTGCACAGGCGGATCCACACCGGGG
AGAAGCCCTACGAATGCCTTGTCTGCGGGAAAGCCTTCAGCGACCACTCATCCCTCAGGA
GCCACGTGAAAACCTACCGGGGAGAGAAGCTCTTTGTGTCAATCCGTGTGGAAAAGGCTCC
AGTGAGCGCGCCTGCTTTAGAGACACAGGATGATTGAGACCGGAAACAGACCTCGTGGGT
GTAAGAGGAAGCCTCTGTGAGCTCGCACCTTACTGGGTGCAAAAGAATCCACGGAACCTG
GGAGAAGTCCAGTTCCTGTAAAACCTGGGAAGACGAGGCGTTCTCATCCCATAGGAGGTT
TGTGAGAACTCACGCCGGGGGTGAAAATGTACCT

Sequence 317

GGAGCTCCCCGCGNGGCGGCCGAGGTNTTTTTTTTTTAGTTTAGTTTATTTCTAGTTCA
AAAATAATCTGTAATTGCTGTAAGAAATGTCAACCACTTACCTAGGATGTTTGACAATTG
GGATGAAGTCTACATATACTAAGTAATGGCNAGACAATTATTTTATTGCTCAAAAGAAAG
TCAAAAAAATTCATATTCCCTTTGGGGAAAATTGGCAGGATTTCAGATGACCTTTAA
GAATCAGGAAAAGACTAATCTATGCTTTAGGATTAACCAATCAAATAATTAAATTAGTT
C

Sequence 318

TCTGGCGAACATACATGGCATATAGAATATCNCCTTCTCCACATGCAGCCTGAACTTCT
TCACCTTCTCAAATAAGGCCTTAGCCTGCTCACCTTCCTTTTATCCAGAGCCCCTGCAG
TGGATTTATCAACTACAAACTTCTCAGGAATGGACTTTAAAGACTGAGAGTTGACCAGGC
TGCCTTCTGGACCAGATTGGATGGTGTGGACCTGTTTCATGTTGTTCTTCTGTTGTCCT
TTTCTTCTGAGTCCTCCCCAGACACTTCAGATAAAGCCCCGTGTGGTCCAAGGGAGAGTC
AAAACACTTCCCCAGAATGGGAGATGAAAATGTTCTATTTTGGGAGCTGGGACCAGGGGA
ATTTGAACCAAAAAGTTACTGGCAGAGCATAAANACCCAGGGTNTNGATGAAGGCCAAGG
TAAGGGNAATCTTGGCTTACCAGTGGAGGGCTCGCTTATACACATTTTGNTNANAACGGN
NNCCTTCCCCGGGCCGGCCCCCGGCAG

Sequence 319

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTAAACAT
CTCTTAGTAATTGAGAAAATTGAAAGAAAAGAAAAAGAGAAAGGGAGAAAGAGAAACAG

Table 1

CGAAAGGGATAATGAAGGCGAGAAAGAAGAAGAGAAAGGAAGAGGAAGAAAAGTAAAAAG
GAGGAGGGGGAAGGAAGAAGGAAGAAAGGTGAAAAGAAAGAATGGTAACTTTTAAACAA
CATAATTTATCCTTCTAGAAATATGAATGTTGGTCTATTTGATGATGTCCACAAATTCAT
TAGTCTCTGCTCATTGTTTATTTTTTATCTTTCTGTTTCTCAGAGACAGTATTTTCCAT
TTTCTTCTCTTCAAGTTCATGGCTTCCTCTGTGTGTGCAAAATATACTCTTAAATCCCTCT
GGTGATTTTTAAATTTTTATCATTGNAGTTTTCCACTCCAGAATTTGGTATCCTCTTTCG
TGATATTCCTACTTTTTAATATTTTTCTGATTCCCTTATTTCTTGGTTATGGNTTC

Sequence 320

NCCGCGGTGGCGGCCGAGGTACCGCTTATGCCAGGCCGATCCCGACCTGGACTCAGACAA
GGATGAAACAGGCGCCTATTTAATCGACAGAGACCCACCTACTTTGGGCCTGTGCTGAA
CTACCTGAGACACGGCAAGCTGGTGATTAAACAAAGACCTCGCGGAGGAAGGAGTGTGGA
GGAAGCAGAATTTACAATATCACCTCATTAATAAACTTGTAAGG

Sequence 321

GGGCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTATTTCTAGTTTAGTTTATTTT
TAGTTCAAAAATAATCTGTAATTGCTGTAAGAAATGTCAACCACTTACCTAGGATGTTTTG
ACAATTGGGATGAAGTCTACATATACTAAGTAATGGCAAGACAATTATTTATTGCTCAA
AAGAAAGTCAAAAAATTCATATTCCTTTGGGGAAAATTGGCAGGATTTCAAGTATGA
CCTTTAAGAATCAGGAAAAGACTAATCTATGCTTTAGGATTAAACAATCAAAATAATTAA
ATTAGTTCAATTTCTAACATAGTCTCTATCTTCAGTTAAAGTGCATCATTGCATGTTAT
ACATTACTAAAATTCACAGTGCATAATTGTTACCCATGTGACTATTTAATTCAGGGTCA
ACTGTCTAAAGGCTCAAGGTGTACATTAAGGGTATAATCTAGAATGAATTGGACNA

Sequence 322

AGGTACATACTCAGACATGTCTAATACAATTCAGTGTTTTATAAACTGGCAGAATTGAT
GTGTTTTATAACAATTCAGTATCCAAAAGCCTGAGGAGACTTGGACCATTTCCTAAGGG
ATGAAGCGGGAAACGTTTATTAACCAGAGCCAGATTGAGACCTTAATAATAAAAAGACAT
GGGTCCAACCCATAGGTCACTCCAATGGCATCAACACTAAACCATAAATAAGCGTTAAC
AAAGTGCAAAGTTCTAAATTTTCGCATAGCTACTTCAAGTCTCTCTTTTTTAAACATTA
TTCTTATGTGGCTCACCCGTCACTAATGCTCAGTGTGCCTCTTGGGTGGCTCAGCAGTGG
GAAGTCCACTTTCAGCCTAACTACTCCTAACAATGAAGCTGTTCTCCAGAGAGCAAGAAT
AGCCAGCCACATGCCCCCTTCTCTGCTTTTTCTATCCCCCTCCATCTGATTCAATGGCGGT
GTCCTGGCTTGCAGGCTTCAGTATGCTTCA

Sequence 323

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGAATCATCATGTAAGG
AGTTTTTAAACATTGTTGCCAGGGCCCCCTTTCTAGACCAAGTTAGTCAGAATGTTGGAC
AATGAGGCCCATGCATGGGTATTTTACAAAGCTCTCTGGGAGATTCTAATGCTTAACCA
AATTGAGAAGCACTGAATAAGAATATCCTGGGCCGGCGCACTGGCTCATGCCTGTAATC
CCAGCATTTTGAAGGCCGAGGCGGGTGGATCACTTGGGGTCAGGAGTTCGAGACCAGCC
TGGCCAACGTGGTGAAACACCGTCTCTACTGAAAATACAAAAAATTAGGTGTGGTGGTGC
GTGCCTGTGTTCCAGCCACTCGGGAGGCTGAGGCAGGAGAATCGCTGGAACCTGGGATG
TGGAGGTTGCAGTGAGCCAAGATTGCACCACTGTACTCCAGCCCCG

Sequence 324

CCGCGGTGGCGGCCGAGGTACATTGAATCATCATGTAAGGAGTTTTTAAACATTGTTGC
CAGGGCCCCCTTTCTAGACCAAGTTAGTCAGAATGTTGGACAATGAGGCCCATGCATGGGT
ATTTTACAAAGCTCTCTGGGAGATTCTAATGCTTAACCAAATTGAGAAGCACTGAATAA
GAATATCCTGGGCCGGCGCACTGGCTCATGCCTGTAATCCCAGCATTTTGAAGGCCGA
GGCGGGTGGATCACTTGGGGTCAGGAGTTCGAGACCAGCCTGGCCAACGTGGTGAAACAC
CGTCTCTACTGAAAATACAAAAAATTAGGTGTGGTGGTGCCTGTGTTCCAGCCAC
TCGGGAGGCTGAGGCAGGAGAATCGCTGGAACCTGGGATGTGGAGGTTGCAGTGAGCCA
AGATTGCACCACTGTACTCCAGCCCCG

Sequence 325

CCGCGGTGGCGGCCGAGGTACTGTCCTTACAACAGTTTGGACTGAATATTCTTGTTCCTCA
TTCACAAACATTTCTTTCTGAAGTACCAACAGCACTAATCAATAGCTACACTTAAGCCAT
TTAAGACTAAGCTTTAGATGTGTGTCTAATTATCTGGCAAAAATAAAGAACCAAGAGT
TTCATGTTAGCAGCAATTAAGTATTAAGGGTCTTGATTTTTTTCATAAGCCTTTGG
AAGCCTGCATATTAACACTGGTGAGTTTTAAATCTCAATGGAATGGTGATGGCATT
ACTGAACCAAGCCAGCTCATATTACAACGTTTTTTTTTTTTTTCGTGGTTCTGAGTG

[illegible]

Table 1

AATCAAGATTCCCTTTTGNATCTTGNACCTGTTTCATGCCACTTTGATATTCTAAATT
CATACATAAACCAAT

Sequence 332

TATACGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAGTGTGTTTTAGATACA
GAGACTTGGGGAAATTGCTTTTCTCTTGAACCACAGTTCTACCCCTGGGATGTTTTGAG
GGTCTTTGCAAGAATCATTAAATACAAAGAATTTTTTTAAACATTCCAATGCATTGCTAAA
ATATTATTGTGGAATGAATATTTGTAACATTACACCAAATAAATATATTTTACCTG
CCCCGGCGGCCGCCCGGGCAGGTACATAATACATGATTGAATACATGATCGTATTTAACA
TGTTTTTTTTTCTGCAGTGGACAAATAACATCCTCAAAGTAGCAACTGCAAAATCAGTT
ACCCTTAGAAAAGCAAGACCAAACTGTAGTTACACTATTAAGCAGTGACCAAAAAGGG
CTAATATTTTCTAAGAATAGTTTAAATTACAGACATTTGGTATATTTACCTTATGTGAAA
TACATCACTATTTAATTACATTAATTTTAAACATCTGTTGNGTGGAGGTTGTATAGGTTT
ATGCCAAAGCCTGGGGGTTG

Sequence 333

GCGAATTGGAGCTCCACCGCGGGTGGCGGCCGAGGTACTCTTTAAAAAAGTTTT
AGCATGTTACATATTCCTAATAAGTGAATTTTATGTCTGNNCTAAAATTTACTTCACTT
CCTCGNGTAAGGAATGCCTTGCTTAACTCAATATATAAAATCAGAAATTTAAAAAAT
TAAAAACCAATTAGAAAATGGAAAGTTTATTCACCTTACAAAATACTTGGGGATTTATTT
TTCTAAAATTTTTAAGTTATCTTTTACNTTTTACACAAATTTTATGGTTACCCCTGG
GCTTTGCCCAATGGGTGGGGGGCCCTTTTGAAAGGTTTCCATTATTCNCCCCTGGACCA
AGGNAAGGGGGGAAGGAATCCTTGCTTCTGGAAGGTGGTTTGCCCTTAAAAGGACATT
CTACCAAAAACCAAAACCCCTGGGGNGGTTNTTNAATTCCAGGTGTGAAAAAAGGAA
ATGGAATAAATTTCTNGGTGAAAGGCAATCNTNGGGGTCTTTNTTTTTTACCTAAAGC
CAAGGCCTCTTAGGNGGTTTGGAGGCCCTAATCCGTTTNGGGGAAACCTGGGNGGGGAA
AAATTAATTTTCTTCTTAAAGTAAGCCTTCTTTTAAAAAATNGGGGANTCCCTTGNCTA
ACAGGAGGANGAACTTAAANGCTAATNGGGCTTCTTTTCTTCAGGGGGGCTTTAGGCT
CTAAAAAATGGGAAGTTTCTTTNTTNGGACTGGAAAACTANGAGGAAAAAGGTAAA

Sequence 334

GGCCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTGGCTTGCCCCGGAC
CACANGCCTCGTAACGGTAACCCCTGCTTTCCAGGGGCTGGCACCCCATTTTTAAGNG
AAGCTGTGAAGCTCCTTTCTATTACTCATCATGCATAAATAACTATATCCGGTATTAGC
TATTGTTTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACTCAGCAGGAAAAGAA
AAAGCAGTTCCCTGGTTGTTATTTACCTCGGCCGCCCGGGCAGGTACTTGTATCTGGGCC
AGCTTGATAGGGAGAGAAATCCTAAGGAATGTAGAGATGATGACCCTACCAATTTGGAA
CTAGACTCCAATGAGTTTAGTTAAACAAACACTATGGTGAAGAATTTCTTCATTAGTA
TCTTGTCACTTGGGGGAGTGAGGGGGGACAGAATTTGCTCTTAAAAACCCAGGGGTTGCT
TTCATGTGTTATTACCNATGGTCTTTGTAGGCCCTCCATTNNGGATTGAGTGGGTNAAA

Sequence 335

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAAGGTACGGGGGGCGCAGG
TCCAGGTGGCGGGGGATATGCTGCCCAACTCCACCGAGCGGGCCATCACNATCGCTGGCG
TGCCGCAAGTCTGTACCCGAGTGTGTCAAGCAGATTTGCCTGGTCATGCTGGAGACGCTCT
CCCAGTCTCCGCAAGGGAGAGTCATGACCATTCCGTACGGCATGATGAGTTCTGAGCTGC
GGAGGAACCCCTCATTTCTCAAAAGTAATTTATTTTACAGCTTCTGGTTTACATGAAA
TTGTTTGGCGCTACTGAGACTGTTACTACAACTTTTAAAGACATGAAAAGGCGTAATGAA
AACCATCCCGTCCCCATTCTCTCTCTCTGAGGGAAGTGGAGGGAAGCCGTGCTTCTGA
GGAACAACCTCTAATTAAGTACCTCGGCCGAGGTACCGGATTCTCTTCTTAACCCCTCCC
TTTCGTGGTTTCCCCCAATGGTTAAATGTTTGGATGGT

Sequence 336

ATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTGGCTTGCCCC
GGACCACAGCCTCGTAACGGTAACCCCTGCTTTCCAGGGGCTGGCACNGNCATTTTTAA
GTGAAGCTGTGAAGCTCCTTTCTATTACTCATCATGCNATAAATAACTATATCCGGNATT
AGCTATTGNTTCCAATAGTTATCCAGTCTTAAAGGTAGGTTAGGTACTCAGCAGGAAAA
GAAAAAGCAGTTCCCTGGTTGTTATTTACCTCGGCCGCCCGGGCAGGTACTTGTATCTGG
GCCAGCTTGATAGGGAGAGAAATCCTAAGGAATGTAGAGATGATGACCCTACCAATTTG
GAAGTAGACTCCAATGAGTTTAGTTAAACAAACACTATGGTGAAGAATTTCTTCATTA

Table 1

GTATCTTGTCACCTTGGGGGGAATTGAGGGGGGACAGAATTGCTCTTAAAAACCCANGGG
TTTGCTTCCATGTNTTATTACCATNTTNTTTGTAGGCCTCCATTTGGGATTGANNGGTT
AAAAAA

Sequence 337

[illegible]

Sequence 338

AATTGGAGCTCCCCGCGGTGGCGGGCGNGGTACTTTGGTCCAGATAAACTGGTGATATC
ATGACCCTGAAATTCCTTGACTGGACTTCAGAATTTATAAGNGGCATGGNTACTGTTTAC
TTGGTCACTGCAGATGGGAGTTTTGATTGCCAAGGAAACCCANGCTGAACAAGAAGCTTT
AGTTTTCTTTGCATTACTGTGAAGTTGNACTGCTCTGACCACTCTTGGAAACGGAGG
CTTTTTGTTCTAAAGATGTTTACTATGTTTGAACATTGTTCCATAAACTTGATGTACCT
GCCCCG

Sequence 339

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCCTTCATCCA
CCAACCTCCAGAGAATAACCTGGCTGCCCTCACTTCTCCAGCTTTTCTCACAAGGCACCTT
GTTACAGGGCTGCTGATGGGAGAGGGAGGAAGGCCTGGGAGGCGGGATCTGTTGGTGGCGC
CCAATCTACAGGTCCCGAATCAGGGTGGGAAGTTGTCAAGGACATGCGGCTGCCATAGTA
CCTCGGCCGCCCGGGCAGGACGTGTAGTGGGCCGGAATGGAGAATCCAGTGAACCTGAGCC
TACAAGGCATCCGAATCGACTCAGATATTAGCGGCACCCTCAAGTTTGCGTGTGAGAGCA
TTGTGGAGGAATACGAGGATGAACCTATTGAATCTTTTCCCGAGAGGCTGACAATGTTA
AAGACAACCTTTGCACTAAGCGAACAGATCTTTGTGACCATTGCCCTGCACATATCGCATG
ATGAGCTATGAACCACTGGAGCAGCCCACTGGCTTGTATGGATCAACCCAGGANGGGA
AAATGGTGGCAATGCCCTTTATATATTATGTTTTTACTGGAATTAACCTGGAAAA

Sequence 340

GGAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACCGACCGCTCCGAGATCTGTATGAG
TTGGAGGCCAGGCCAGTGTGAAGTGTGGGAGGAATCCGCCCAACNAGCTTCATACAGC
ACCCGAGGACAAGTGTGGCTTCCTGATTCACACCTACTGAGCCACAGGCCCTCTGAAG
TTAGGTC AAGAGGGGCCACCTAGCCGGGCCAACTCATCTCTTGAGGACCTGNTACTCA
ATGAACTGCTTACTACCAAAAAAATGCTNAGGATTCAGCAAAAAAGTGCAATTTCCATTG
AGAAGTAAGATTCTNCCCAAAACGATGACACCACCTTTTCATCCTTTCAGTACCTNNGCCG
AGGTGGACTAACTGCAACGGAGAGACTCAAGATGATTCCCTTTTTACCCATGTTTTCTCT
ACTATTGCTGCTTATTGGTAACCCCTATAAACGCCAACA

Sequence 341

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTCACTCAGAT
ACTAAATAGTAGTTTATTCCTTTAATAATAAGTTACATTCGTCTCCTCAACCAAATGCAATT
TTTTGTGTGTGTTTGAAGCTAATTTGAGAAAATTCATAGGTTACATTTCTCGCAGCCT
ATCTTTATCCACAGAAAGTGTTTTTTTTTTAAATCAAGACTTTTAAAACCTGGATTTCC
TCCCATCACTGTTTTTTGAAGGTCTCCAAGTCCGTGTTAAGGTAATATCTGTTTTCTT
CCTGATGTCACAGCCTGAGCATACTCTGTGCATTAGGAAGACCTGAGTGCATTTCCACC
ATTGCTCTTCCACATTATGTTGTAGCTGGCTGGCTGTCAGGCAGTACAAGACTGAGGG
TCTTGTGCCTTATAGATTCTTTGTATCCCCCATGGCTGACACATAGTAGGTACCT

Sequence 342

NATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTA CTGCATGTTACATATTCTTCT
TTAAAAATTTTGTAAATAACATTGACAGTGTGGTAGGCACAGGGAAACAGGATAACGTA
GAGTCATTACAGAAGAAAAACCTATTGCTAACATCTGCAGTATTCCTTTTATCAGAATT
AGGTGAGTATGATTGTAAAAAGCTATCAACTCTGTCTTATTATTGATGACTTTTGAGAC
TTTTTACTCTTGCTATAAAAAAGAAGGCTACTTTCTTTCCCTAATATATTCTACCAATG

Table 1

CGAATAATTCAGGAAACAATGAGAGAAAAGTAATTCACACTTAATGTGTTGTTACTTAAG
AGATTTGACGGATAAAAATAAAATCAAATTAATCATTTGAAAAGGCANGGCTTAGACCC
CCTTAAAAACACCGNTGGTGCCTACCATAATTTGAGCACTTTTTCATGAAAAAAAAAAAA
AAC

Sequence 343

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNNGGGAACNANAGNANAACATAACGAT
GATGAATGCNNAANNTNCANNAACCGNGGANNGGNTGNANNGATGNGGNCCCCACTGTN
NNCANCNNNATTACATGACATNAAATCAGANACNANGGAGGCCCTGCTACAAAGAAGCAC
AAGATGTGGTGTTGCTTAAAAAGTCCTGTATGTGAGGAACCTTTTCATTTTCTTGGGGAT
TGGCAGTGCTAGGACTTGGTAAGTTGTTAGGAACTTCGAAGGGCTTTCCGGCATAAGTG
CTTCAAGTGAGGACAGGACCCTAGGAGCTGTCCAAGAACTGGA

Sequence 344

AGGTACCAGACTCTTATTTCTGCACTTTTGAGAATTCTAAAGATACCTGAGTCATTTT
AAATAAATTTGAGCTTTCTTTACCAAACCTACCCCTAACCGGATTCTCCTTGAAATGACAT
CACCTGACACCCATGGCATGCTGCATGCCACAGCTAGATTACTTTTGTAGTGGCCCCACG
CACTTCTGCTTTTATTTAGGTGGAGGGCAGNAATCANAGATTCCCTCTTTGTTGGGATCN
TTGAACCCCTNGATTGATGCCACTTTTGGATAATTTCTAAAAATNCCATTACCATAAAAC
CCAAATTGAAATATATTGNTGTTTANGAAAAAAATTTGGCTTATNTT

Sequence 345

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCCGGCCTGCANAAG
CCCTCGTGGCAGCCCGCCCCACTGNGTGCTGGGCCCCTGTCTGGGGCAGCTCTACTCAGCC
ATGGGGTACTATATNTTTAGCTTGCAATGACATGACTCCAGAGCAAATGGCTACAAATGT
GAACTGTTCCAGCCCTGAGCGACACACAAGAAGTTATGATTACATGGAAGGAGGGGATAT
AAGAGTGAGAAGACTCTTCTGTGCAACACAGTGGTACCTGCCCGGGCGGTGCGNCCGGGCA
GGTCTCCAGAGCCTTCTCTCTCTGNGCAAAATGGNAACTTTAAAGAA

Sequence 346

ATGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCAACCTCCATTCTCGCCC
TGCCCCCGGAGCCGAGTCCTGTATCAGCCCTTTATCCTCACACGCTTTTCTACAATGGCA
TTCAATAAAGTGACGCTGTTTCTGGAGAAAAAAAAAAAAAAAAAAAAAAAAAACCTG
CCCGGGCGGCCCGCCCGGGCAGGTACAAGTATACATAAAATGGCATAAATGGCATAATG
AACCAATTACTGGATTCAACTATATTAAGACTATTTCCCTTAAATCCTACTTCAGACTAAA
TTATTTTACCTACATTCTTTCCATATTTTGGAACTTCTGAGTCATTATTTCCACCTTG
CACATTAATAAATTTAAATTAACATGTATCCCTTCTCAATAAGTTTAAATCAGCTAACCC
TAAGCTAGAGGTCAAAATCTACTTCTCTAATATCAAAACGAAAT

Sequence 347

GGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAAGGTACCGTTTCTCAGCGGCG
GACTGCTGCAGTAAGAATGTCTTTCCACCTCATTTGAATCGCCCTCCCATGGGAATCCC
AGCACTCCCACAGGGATCCCACCCCCGCAAGTTTCCAGGATTTCTCCACCTGTACCTCG
GCCGCCCGGGCAGGTACATTTAATCAGTAAATCAGTTTCACATCATGATTGTGATGTTT
CAATGTGAGACACAAAAACAATGGCTTGAACCTTGTGTATCATATGTGATTTTGAATGA
ACACCTTGAATAGCACTAATTTTATTTGTGGNATTTTCTATAACAAAAACAAGTAGCTC
TAGGAAAAGAGGTTTTATTTGTAAACGATCATTTGTGACCTCAGACACTCTCTGGCTAA
T

Sequence 348

AATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAAGGTACCAACAGCTCCTCTTTTGGCT
CCACACGGATCTGAGAAAGTGCACTGTAGGCATAAGCAGCTATCCTGGAGACCTGCTGCA
AATCAGAGAACGGGATGGGCTCACTGGCCAGCACTTGGTGGGGGCTGGCTGGTAAGAGAC
GGCAGCGGTGGCAGCTTCTTCCAATGGGTGAGGCTGCTGCTCAGCACAGCCAAGCGGGTG
CTGTACTCATGACGGAAGTTGCCGCTCGCCCACTTGTGCAGCAGCGTACATCATTTAAAT
AACATAAATGACTTTTACACAGCTTGACCTAGGAAAAAATAAATCCATCATAGCCACAG
CTAAAAAGCATGTTAAGATTACAATAAGAATTTGTTTCTCTTATTATAAAGAGAAAGAGC
AATCATATAACCTCCTGGGGGTGGGGGGAGACCTCATAAATATTTTATTTGATTGACAA
AACAGCATGCT

Sequence 349

GGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGATTTAACTCTGTATTACT
GAACCTCTTTGAACATATTTGAACCTTTGAATCTCTCTCTGAATAACTGCCGAAACTCAA

Table 1

AGATAATAATTAGTTGATGAAGGTTATCAATTAATAAAATAACACAGACCAGTCTTACCA
AACTCTAAATACATTTTAAAAATAGAACTGGCAATGATAAAAGAATGTTGAGTACCT
GCCCCGGCGGCCCGCCGCGGCGAGGTACTGAAGATTCTTCTTTCGGTGGAAGACAATGGATT
TCGCCCTTCACTTTCTGTCTTAATATCCACTTTGTTGCCACACAACAATGGGGATGT
TTTCACACACTCGTACCCATAGC

Sequence 350

CCGGGCGAGGTACAACCTTAATAGCATNCTAGGGTAAAGAGTAACATATTCCTCAAGAAAC
AGAACTAAAAATATTTCTATTTATGAGAAGAGTGAGTNAGAACAACAGGGATACCTNN
CTCACCAGCNCNCACTTAATAAAAACATTTNATTCCATACNAAATCCACAAGCCTTTTCGG
TCAGACTTTAAANGAATGTATNATTCGAAAAACAATNAGTTTATCTTCAATTTNAAAAA
ATNTCANTTGGAAAGACNTAANTAACCNAGTGGAATTCCTTTGGCTTNAACAAATTATT
GGTTACAAATTTNCCCCAAAAAGGGGTTTNAAAATTAACCTTTANTNAAGNGTTATAAAN
TANACNCNGTTAAAAATTAANTTGGGNAAAAATAACNTATTNTTTAGNTTCCCTTGCGGG
GCCCCGGTTTCTNAANGAACTTAAGNTTGGGAATCNCNCCCGGGGNCNGCTAAGGGG
AAATTTNCAATTATTTAAAGCCTTTAATTGANTTCCCCGNCNCGAACCTTNGAGGGGG
GGGGGGGGCC

Sequence 351

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCAGGGAATATTACAAT
TGCAATCATTATTTTAAACCATCTCCTCCCCCTCTTCCCTTCCCAAGATATAAAGAC
ATAAACATCATCTGCTGCCAAATAATCCTGAAATTCGAGGGGCGATGCTGGGAAGGTAT
GAAATTAGAGGGAGGCATGTTGCTTTTGCACCTTCAGATCAATGGCTGAATTCAGACCC
GGGGAAGCCTTTAGATCCGCATGTAATTTGTTTAAACAATTGCTGTTTCATCGCCACAG
CAGCACTTGTAATGCCGAGGGAGGAACCTTGACGATTTCTTGCTCACTTCAAGAAATCA
ACTATAACAAACCTNTTNCAGAAGACTACCGACATNCATATTTCTGCAATAGTTAGATAA
AAGTTAAAGAACTGGTCCTTTTGTGAATATTCACAGTCCACTGCATATAAATCGGTTTA
TGA

Sequence 352

GGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCACGCTAAGTGATGCTCTCTTG
TAATTGAAAGAGAATGGGTTTCCCTTCAAACCATATGCTATTACTAGTCTCTGAGTGCCT
TCAAAGCACATACTCTTCTTTAAATCCAAGGATCCTTGCCCTCAAAGACACAAATGC
AGTAGTTTTTCATTTCTTACATTCACCTTAAAAATGGATTATGATTCCAGCAGGCAAATCTG
CATATTTAAATATAGACAACCCAACACAGTATCTGAACGTTAAAGAAATCTATCACGAC
AGACATTTTACCTAGTTATAAATAACGTAACAATAGATCACACTCAGATTTCTTAAACAG
CTCACTCAGGAGTTTCTCTTTTAAAAATTAATAACTTATGGTACAACAGGCAGCAAGC
CATGTATTTACCATGGCGAGGGTCACATTTCAACCATCTGGTTGGCTGGCTCAAA

Sequence 353

CCGCGGTGGCGGCCGAGGTTTTGCTTTTTTTGAAAAAGGTAAGTTGCTGATTAAGTCTAA
TTGGAATTGATAATTCCATAGTCTTAGATTAAATGAGGATATTTTCTCCTAGATTTTCT
CATGTTATGCCATGCATTTATATATCTAACCATTAATTTACACTAAGGATGCTTCACCA
TATAATAAAAGGAGCAAGATGGAAGCACTTTGAATTTCTTTTATTGAGAATAACTGTTT
TATGTAAGAATCTGTATTTATAACACCAGATATTAAGATAGGCTTCCATTTTTTAATGCA
AGCCACTTACTTAATCTTGTATTTCTTTTTCAGGACTCAAATAACTAGCTTTGAACATAAT
ATTAACACTACTTATAGAATAGATTTATTAATGTTAATACCTAGTGAATATCCATGTG
GCATCCTGGTTATGTTATCGGTTACAGCGTTAATCCTATAGAAAAGTGGTTTGGAGG

Sequence 354

AGGTACTTGTTAGTTGTTGAGAAACATTTTAGGCAGTAAATAAATAGTAAATATTATGT
GTCCTATAATTTGACCTAAGCTGTGTGCCTTTTGAATCAGCTCTAAGCCAGGGCCCCCGG
GGAGTCATGTTAAGTAACACGATCATAAAGTGACATACATCAAGGTTATCTTATATAGTC
ATAACAGTATTATTGGGTCTTTCAAAAACAGCTGGCAGATTGAGCTTTAATGGCTATAT
TGATACAGTAGATAGAGCACCTCTAAGGAGTCTGCCCCGGGCGGC

Sequence 355

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAGAGACTATGATTTATATTGAT
TGCACTTGCCTGCCATGATTTAGATAAGATTTTTTGCATGGTTTTTATTCTTCCCTAAC
GGATCCTGTTTTATAATACCTCCAGCCTGTCCATGGATATATCAAATGTCTTCACTTGT
ATATTTTCATGGCTAGGTATTTCTAATGTTTATTCTTCCCTGTGTACTGCAGGGGATGCT
CTGCCGGTCCAGGGACAACAGCCTTTCTCTTGCTACTGCTCTGATTCTGTCTCGTCCG

Table 1

TTTTTCTTCTCACCATCTTTCTGTGTGCTGTTTTCTTCATTCTGATCATGGTCCCGAC
TGTCATCATCTTTCAAAGCGTCGAACCTGTTGTTTCATCCTCTCGCCGCCGCTGTCGCCCC
CGCGTACCTGCCCGGGCGGCCG

Sequence 356

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCATGTTACATATTCTTCTTTAAA
ATTTTGTAATAAACATTGACAGTGTGGTAGGCACAGGGAACAGGATAACGTAGAGTC
ATTACAGAAGAAAAAAGCTTATTGCTAACATTGCAGTATTCCTTTTATCAGAATTAGGTG
AGTATTGATTGTAAGCTCTATCAACTCTTGCTCTTATTGATGACTTTGAGACTTTTT
TACTCTTGCTATAAAAGAGGCTACTTTCTTCCCTAATATATTCTACCAATGCGAAT
AATTCAGGAAACAATGAGAGAAAAGTAATTCACACTTAATGTGTTGTTACTTAAGAGATT
TGACGGATAAAATAAATCAAATTAATCATTGAAAAGGCAGGCTTAGACCCCCCTAAAA
AC

Sequence 357

CCGCGGTGGCGGCCGAGGTACCTCTTTGCCTTAAATTGCTTTTTAGTTCTAAGATTGTAG
AATGATCCTTTCAAATTGTAATCTTTCTAACAGAGATATTTAATATACTTGCTTTCTT
AAAAAACAAAAAACTACTGTCAGTATTAATACTGAGCCAGACTGGCATCTACAGATTTT
AGATCTATCATTTTATTGATTCTTAAGCTTGATTAAAAACTAGGCAATATCATCATGGA
TACATAGGAGAAGACACATTTACAATCATTGAGGCTTTTATCTGTCTATCCATCCA
TCATCATTTGAAGGCCTAATATATGCCAAGTACCTGCCCG

Sequence 358

CCGCGGTGGCGGCCGAGGTACTTCTTTTCCAGAGCAGGTGGCACAAAACGACCCCCCAGG
TAATGGTAGCGACCGGTAACTGGGTTGCAGATTTTTTGGGGGCTGTGAGGGAGATGAGC
AAGTCTGGCTGGATCCCTCCAGCATTTCCTTCTCCACGTCCCATCCTGAGGGAATGTG
ATGCTGGCAATGGGCACAGTGAGTCCCTTCAGGACACTCAGGATGCTGTGGAACGGTTCC
CGAACATCGCCCTTGAAGCTGAAGCCAAAGATGGCATCCACCACCAGCTCATACAGTTCA
TCAATCGTCATGGGCTCTGCGGGCATTTCCTCAAGGAAAGGGATGTCCATTTTCTGACAC
TGGGTCAACAATGCAGTGAAGAGGGGCTTGTTAGGCCTTTTGGGGTAATAGATGGTTGGC
TCGTAGCCAAAGAGTTGAGGTGTCGAGCACAGACCAGACCATCTTCTTCATTATCCCC
G

Sequence 359

CCGCGGTGGCGGCCGAGGTTTTTCATGCATGCAGACTTTTATTTAACCTCATTGAAATTA
AATTAGCAATTTAAAATACAAATATAGCATTGTTGTTTTAAAAATCACTATCTTTGTC
CTTTAAGATAAAAACAAATAGGGTTGGTCACCTTATATGTCAACCCAAAAAGTATCAA
AATACCTTGACTGCATGAAAGAACAGCTTCTTTAGGNCTATGCATTTTGACTTGGGCTTC
TGCCAGATGATACCATCCACTTGGGCAGACAGGGCTTTCCTTTAACCT

Sequence 360

CCGGGCAGGTACCAGCGCTCCCATACGTGGAGCCGCCGAATACGAGTCTTTTGGGGC
TCCCGGGCCAGCCGCGAAATCACCAAGATGCAAATCATGGAGTTCCTGGCCAGGGTCTTT
AAGAAAGACCCCCAGGCCTGGCCCTCCCGATACAGAGAAGCTCTGGAGGAGGCCAGAAGC
TCTGCGGGAGGCTAATCCCACTGCCCACTACCCTCGCAGCAAGTTGTCTTCTGAGGACTA
GCCAAAGTTCTGGGAGGNCAAGATTGAATGGGTTTTTCNTGACCCCTCAACNCANGGGCTT
GTTGGGAAAGGGGNAGGGGTGGCTGGCGTTCATTAATAGGTATTTCAAGGGATTTTAAAC
GGCTGGCAANTAATTTNCACNGTTNTAAACCTTTTTTAAAGTATTTCAAGGTNACCCTT
CTTTNCCGCNTCTTANGAAACCTAAGGTGGGGAATACCCCNCGNNGGGCTTTGCTAAGGG
GAAATTTCCGANNAAATCAAAGNCTTTNATTTTGANTACCCGGCTNCGTANCCCTTCCC
AGGGGGGGGGGGGGGGGGGTTAACCCCAAGCTTTTTTNGTTT

Sequence 361

CCGGGCAGGTGTGTGTATTACGCAGTACTCGCTTCCATTTTATGACCTTTCAACTAT
AGGTAATAACTCTTAGAGAAATTAATTTAATATTAGAATTTNTATTATGAATCATGTGAA
AGCATGACATTGTTTCAATAGCACTATTTTAAATAAATTATAAGCTTTAAGGTCATT
ATACTACCAATAACTTGTTAAATCAGGATTTGGCTTCATACACTNGAATTTTCAGNTATT
TTATCTCAAGTAGNATATAGACACCTAACCTTTGATAGTGGATACCGTTAGGAGGGGTTT
CTATTCTTCCCATTTGACCTCGGGCTCGCTCTAGGAAGTAGGTGTNATCCNCCCGGGGCT
GCAGGGAATTCGATATCAAGCCTTTATCGATACCCGCCGACCTCNGAGGGGGGGGGGGC
CGGTACCCAAGCTTTTGTTCCTTTTGTGAGGGGTTAANTTGCGCGCTTTNGCGT
AATCATGGNTCATAAGCTNTTTCCCTGGTGGTG

Table 1

GTGCATTGAAAAATAAGGTTGATCATGGAATATGCAGAATTTCCAATGTATTTTAAATA
CAAATAAAATTGTAATTTAGAATTTTAACTTTAGGTTTCTTGATTAATTTATAAGAGAT
CAATTATTGTCAGTCTTTTTTGATGTTTTTAAAAACATAGTCCAGAGCATGGGCAGAA
TTGACACCTCTCTTTAAGTGAAATTTGGATTGCTCACAAAGCACTAGGAAATGTCATGG
GGTTCAAATATATATCTCACAACTGGGCAATACATTTTGTGTTTTAGGTCTGT
GTATACATTAACAGTTCATGTAATTAATACCTGATCATTTGGGATAATGAAAGGTGAAAG
TTAGTTGTAGATGAAGTAAAGTTATAAAAGGAGATTAAAAATGC

Sequence 369

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTTGAAAAGCACAA
TAACCTTGATTAATTGCACCTTAACACAATGAACCTTTAGTTTTCCAACCGATTTTCATTCT
CTGCAGACCCGGGGCTTTCTTTTTAAAAAATCTGTTTCAAAGGGCATAGAGACACCCACAC
ATGGTCCACAGCAAAATCAAATAGAGAGGTGCAATAGTTGCAGTGGTAAACACACAAAAA
AATACATTTTTTTGGACTAAAAATCTGGTCACGGATAAAAAGCATGTGCCTTTTCATTCTT
CTCTGGGATGTTACAACAGCAACACGCTCTAAAACAAATTAAGTTACATGCATAATGCCAA
AAGAAATGTGAGCAATCTATAACCAAGCTTTAAGCCATCTGCTTGATTTCTTTTTTTTTT
TGTAAGGAACATATAGTAAAGAGAAATTNCCCTTTTGTTCCATTACATATAGAAACCT
TTTGAAGCTTTCAAANAGCTTTGGGTTT

Sequence 370

TAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGTACTGCGCCATCTGGG
ACACCTTGTTCCTCCANCTGGGAGGCTTCAGCCCGGGCAGCATTGGCCAGCGGCTCAATGA
GATGGGAGATCTCTTGGACTGCAGTGAGCATCTGAGTGTGCAAGGCCCTNTTGAGAGATT
CCTCAGGGGAGCAAGCTGNTGCTTGACTGCAGCGAGNAGGCCNTGNTNTAGTTNCCA
TTNNAAAAAATNTTTAAAAATCNTCCAAANGGATTTTTTAAAAAATTTGTTTGCCCAAN
NNNNTTNAAAAAAAAAAAGGGGNTGTTTTNATTTTTTTNAAAAAANAATCCCCCCCC
CCCTTTTTTTTTNTAAAAAANNNCCCNCTCTNNNAAAAAAANAATTTTATTTNNNN
TTNTATAAAAAAANAATNTTTTTTTTTTTNNNGGNTTTNNNCCCCCCCCCCCCCNC
TNCCCCCNNNCANAATAAANTTTTTTTTTTTTTTTTTATNATAAAAAAANAAN
AAAAAT

Sequence 371

GATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTA CTCTGGCGTGCAACCTGGAAT
TTTTCGGAGGTATTTGTAGGCAAAATACCAAGGGATTTATATGAGGATGAGTTGGTGCC
CTTTTGTAGAAGCGCGGACCCATTGGGATCTACGTCTTATGATGGATCCACTGTCCGGT
CAGAATANAAGGNNATGCATTANCCTTTTNNGGAAAAAGAACTGCNNAAGAAACCN
NGAAAAAANGGGNGGANAAAAANTNNTAAAAANTTTCCCTTGGA AAAAANCCTTGGGGGG
GGGGNCNTTTTTTNGGGGAAAAAAAAAAAAAAAAANNTNTTTTTNNGGGGNGCCCNCCCCC
CNAANTTTNANNTCNCNTNAAAAACCTTTTTTNNGNNGNGNAAATTTNNTATNTTTC
CCCCNNNGGGGGNGGGGGGGGGGGGNNNTNTTTTTTTTTTTTTTTTNCCTCCNN
NNAAAAA AAAAAAAAAAAAAA

Sequence 372

CCGCGGTGGCGGCCGAGGTACCTGAGGAACATAGATTCTCTGCATCTTTCTCAAGGGGAA
CCCTCTCCAGCTTCCCTGGTGTGACCCCTTACATGCCAGATTGGGTAGGATCACTTTGAA
CTGCCTGAAGTTCAGGAAGGTCATCAAGCTC

Sequence 373

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGTACATTTCCATGGGCCCT
GTTCCCATTTGATGTATACTGCTTCCTTACTAACAGTGAGGGATGACTTTCATCAGTCTTT
TATCACCTGAACAGTCTTCCGGCCATAATGATAGTAACATAAGCTGATGCAGCTGTGGT
GAAAGCTGTAAACACCTTTTATGGAAGAAAAAGAAATAAAATGTAGTTGTCAAGTCTAAA
AAATAGTACCAACGGGAATCATATGAATACATGCNATGAATTTAAATGNNAAAAATGAA
TCTAAAAAGTAAAAAGGGCTCTGNGGTGTAAATTTTCTTAACATAACNAGTCTAAATACA
CTGCTTTTCTTAAAGAGTTCATTTTAATTAGNAACCGTCAAACAAAATTAT

Sequence 374

ACTACTCAGGGCGCAATTNGAGCTCACC CGGTGGCGGCCGCCCGGGCCGCGTGAAGAGGA
AGAATGCCNNGAATTCAGGGTGGGGCTGGGGCTGGAGACGACGAGGAGGAGGATTAAGT
CCACCTGTCCCTCCTGGGGCTGCTGGATTGTCTCGTTTCCTGCCAAATAAACAGGATCAG
CGCTTACACCATCTGTTGTACATGTAACAACTCAATTTGAAGTCGAGCTATTATGTG
GTATCCATGTGATCGACCATGTGCCATATATCAATTATGGTCACTAGAAAGTCTCTTTA

Table 1

TGATACTTTTTATTGTACCTCGGCCGCTCTAGAACTAGT

Sequence 375

CCGCGGTGGCGGCCGAGGACAAATGTGGTGTGTCTTCCAACCTTCATTGAAAATGCCATA
TCTATACCATATTTTATTCGAGTCACTGATGATGTAATGATATATTTTTTCATTATTATA
GTAGAATATTTTTATGGCAAGATATTTGTGGTCTTGATCATACCTATTTAAATAATGCCA
AACACCAAATATGAATTTTATGATGTACCTGCCCC

Sequence 376

ATACACTACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCCCGGGCAGGTACGA
GTTTCAGCCTGACCCGTGAGACAAAGAAGCACGTGCTCTTTGGCACTGTGGGGGTGCCTGA
GCACACATACCGCTCCCGAACCAACTTCACCAGCAAATACAACATGAAGGTCTCTACTT
ATCCGCCTTCACTAGCAAGGACGAGGGCACCTACACGTGTGCACTCCACCCTCTGGCCA
TTCCCCACCCATCTCCTCCAGAACGTCACAGTGCTCAGAGACAACTGGTCAAGTGTGA
GGGCATCAGCCTGCTGGCTCAGAACACCTCGTGGCTGCTGCTGCTCCTGCTC¹CCCTCTC
CCTCCTCCAGGCCACGGATTTTATGTCCCTGTGACTGGTGGGGCCCATGGGAGGGAGACA
GGAAGCCTTCAAGTTTCCAAGTGCAAGAAGATCCTACTTNTTTTGAGTCAAGCTGACCCC
CTCCCCCAATCCCTCAAACCTTGAGGGAGAAGTGGG

Sequence 377

CNCGTTTCGCTGTGTGCCTAATACATGCATGTTGAACGGGATGTAGCAATACATTCACTAG
CGAATGGGTGAGTAACACGTACCTAACCTACCTTTAAGACTGGGATAACTATTGGAACA
ATAGCTAATACCGGATATAGTTATTTATCGCATGATGAGTAATAGAAAGGAGCTTCACAG
CTTCACTTAAAAATGGGGGTGCGGAACATTAGTTAGTTGGTAGGGTAATGGCTACCAAG
ACGATGATGTTTAGCCGGGCCGAGAGGCTGTACCCTCGGCCGCCCGGGCAGGTACAAGAG
TGATGGCAATGTGACTGGAACAGAAATAGTTTCTACCAGGCACACAAAAGCTTCTGTAAG
CCCCGTANTTCCGTCTGCAAAGGGCCTTNAGTGGGAACCAAGTCTGCAGACCCCAAGTGG
GCANAAAGACCGGGTGAAGCAGG

Sequence 378

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAGGAGAAA
AACTATGTCTAAGGAGGGAAGCACATAATAGAATTCTATTATTACAATAGAATTCTATAA
ATACAAAATTGGATAAACTTTATCAGAAGCAGGTGTTTGTCAACATTTTATGTGAAAC
TCAGGAAGTTCTTGATTTTTTAAGAGCTGTATTCCTTAATCTGGTTACAGGCTATAAAGG
AGATAATCATTTACATGATCATATTCTCAAACAGATGGTCACCAAATGGAATCAAAGGAC
TGATTTGATGTAGCCGGTAGTATGATAATTTTGTAGGTTAAATGGAAAAATACNGGATA
GGATCCNAGAAAAATAANGTAATTTTNCAGGTAGGCCNGGTTTAATAAAATTACCAGGA
CCTAGGAATAAGCCAATTTTA

Sequence 379

CCGCGGTGGCGGCCGAGGTCCCCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTTGACAGCAG
CATCTGTTTATTGACAATTCAGGTCATTCTAACACGCCGNANCAGGGCTNTGTACCTG
CCCGGGCGGCCGCCCGGGCAGGTACTTCATGAAGCANACCATTGGGAATTCCTGNGGCAC
AATCGGACTTATTCACGCAGNGGCCAATAATCAANACAACTGGGATTTGAGGATGGATC
AGTTCTGAAACAGTTTNTTTNTGAAACAAAAAAAATGTCCCCTGAAACAGAACCAAAA
TGCTTTTGAAAAAAAANNGGGGCCCTTACCAGGCAAGCCCAATNAATGCCCGGGGCACAA
AGNAAGGCCCAATTGTTNGGGGTAAAAANAAAAAAGGGGGGAAAAATTTCCCATTTTTNT
TTNTTNTTTNAAANANCCCGGGGGGGGGNCCCCNTTTTANAAAAANTTGGGGGGGGAA
AAAATTNNTTTTTTTTTGNAANAAAAAANCCNCGGGCCCCNANAAAAAAAACCCCC
CCTTTTGANGGANCCNCCNNTAANANAAAAAAA

Sequence 380

ATTGGAGCTCACCCGCGGGGNCGGCCGCCCGGGCAGGACCTCTTGCCTTAAATTGCTTT
TTAAGTTCTAAGATTGTAGAATGATCCTTTCAAATTGTAATCTTTCTAACAGAGATATT
TTAATATACTTGCTTTCTTAAAAACAAAAAACTACTGTGAGTATTAATACTGAGCCAG
ACTGGGCATCTACAGATTTGAGATCTATCATTTTATTGATTCTTAAGCTTGATTAAAAA
CTAGGCAATATCATGATGATACATAGGAGAAGACACATTTACAATCATTATTGGGCCCT
TTTATCTGTCTATCCATCCATCATTTGAAGGCCTAATATATGCCCAAGGACCTCGGC
CGCTCTAGAACTAGGNGGATCCCCCGGGCTGCAN

Sequence 381

TAGGGCGAATTGGAGCTCCCCGCGGNGCGGCCGAGGNNCTAAGCCCCAGGACCNATTGG
TAGACGACNTANNANCNNAGGCGCATNNCACTGAAACANGTCAGNGTATATGNTGGCAGC

Table 1

TATTAAANTTAAGATGAANGNNGAAGCAAAAAGATTTACAAGAATTAGCNGTAACAAANAT
TGATGCTNAAGAGACATNATTGTACCTGCNCN
Sequence 382
TNCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGCCGGCAT
TGCTTAGGGGTTAATAAGGTTAACCTATGGTTACAAAACAAAGGGTAACCTGAAGTATT
GAGTAAGTCTTCTGTAATATGGGGGAGAATAAAATTTTAAATTTGGTTTATTAGAGGA
AAAATTTTGACTTAAATTTAACTGATTTGGCACATAAGCATTGAGAGTGTATTTGGTT
AATGGTTTAGAAGCAAACCAGCAAAGGAAAAAGCAAACCCTAGCAAACCTTTCACAAAT
GTTAAAGAGACACTGCTCCATTTTAAGCAGTGCGGGTCAATTTGAGTTTAAATGAATCCCC
ATCAAATGGGTGGTATAGTAGATAGCTATGGTGTGGTTTGAAGGGTTTGTAGCTTGCAA
GGACGTGCACTAATAATATTTATATGATCTTCTGTTGGCAGGACCCATGGATGAA
Sequence 383
CCGCGGTGGCGGCCGAGGTACACGGATATCACCTGAATTATTAATGAATGCCAGGAAGT
AATTTCTTCTCATTTCTCTAAACTACTGCCTTTCAAAGTGCACACACACGCGTCCACA
TACACTGCATTCGTTGCTCCAGTATAAATTACATGCATGAGCACCTTTCTGGCTTTAAG
CCAATATAATGGGCTGCAAAATGAAGACACAGAGTGTATGCATACAAATCTCACTGTAT
TAAAGATGCAGGTTTCTAATGTACCTGCCCGGGGCGGCCGCCCGGGCAGGTACCCACCC
TCCCTAGCCCTCTGTGCTTCAAGTCTTCTTTGACCCCTTCGCTCTCCACAGCAGGGC
TCTCAGCTGCCAGCCAACCAAGCAGGATGGTGAACAACCAAGACCTAAAGGAAGGGACCT
GGGAAGAAGAGAAA
Sequence 384
CCGCGGTGGCGGCCGAGGTACACATGCATGCATACACACCCATACAAACATCTGTGTGAG
GGCAGTTCTGGAGATGAGCAGAGAGAGACCGGAATAAACTCAATCTTTTCTTTCCCAAGC
TCCTAGCCAACACTATCCTTGGGAGAAAGAAAATTTGCAGAACTGCTAAGACCAAGTGT
GGAGATGTCAAGCTAGTTCACACTCTGAGGCTCAGAATATGTAGGACATGCACAATTGTG
CAGTCTTTGGGATTGGGAAGTGAACAGTCTGTGATCCCCCTACCTTCTAGGGAAGTGG
ACCTAGGAAGAGGTAAAGATTATCAGGTATGCAAAGCGCCCCAATTCTTCTGCTGCCATG
GGGGGGATTTTACCCCAACTCCAGGGGTTGAGGGCCAATCTGAGAATGGCTTAA
Sequence 385
AGGTACCAGACTCTTATTTCTGACGCTTTTGAAGAATTCTAAAGATACCTGAGTCATTTT
AAATAAATTTAGCTTTTCTTTACCAAACTACCCCTTAACCGGATTCTCTTGAAATGACAT
CACCTGACACCCATGGCATGCTGCATGCCACAGCTAGATTACTTTTATGCGCCACG
CACTTCTGCTTTTATTAGGTGAGGCAGAAATCAAGATTCCCTTTTGTGGATCTTGAACCT
GTTTCATGCCACTTTGATATTCTAAATTCATACATAAACCAATGAAATATATGTGTTAGAA
AAATTGCTATTTCTAGCTGGACGCACTGGCTCATGACTATAATCCTACCA
Sequence 386
CCGGGCAGGTACACTGCGTTCCAGGCTGGTGTATGGGGTTGATCCTTATCGGTACAGTT
AGATTAGCTACTATGATGTCTACCTGTTCTCAGGAACCTCACCATAAAACGTCATGGCA
GTAAACTCTGGAGGATTGTCAATTGACATCTGTCACTGTGATGACGGCCGCCCGGGCAGGT
ACATGGTTGATTTTGTGCTGTTGTTGGACTGTAACATCCATGTTGTCATACGTATACC
TTGTAAGTGGATAACTTTTCTTTTCCAGGCCAGAGAATTCAAATTGTTAAACATTGG
CATTTGAAGAGGAGAACAAAATGTAGCATGATGTATTTAAAGTAAGGCCCTTAGTAA
Sequence 387
CCGGGCAGGTACAGGAGTTTCCCTATTTTGGTGTTCAGCTTGAAAAAGGACTTGTGAGAA
TCAACTGTGTCATCAAAATTTAAGTAATGTGCATTGAAAAAAGGTTGATCATGGGAATA
TGCAGAATTTCCAATGTATTTTAAATACAAATAAAATTTGTAATTTAGAAATTTTAAATCT
TAGGTTTCTTGATTAATTTATAAGAGATCAATTATTGTCAGTCTTTTTTGTATGTTTTT
AAAAACATAGTCCAGAGCATGGGCAGAAATGACACCTCTCTTTAAGTGAAATTTGGATT
GCTCACAAGCACTAGGAAATGTCATGGGGTTCAAATATATATCCTACA
Sequence 388
AGGTACCCAGTATTTCTAATTAATTTACATGCTAAATTAATGAAAGTAACAAGATTGT
AATTTTTTAAAGTCAGTTGATTAAATGCAATAAATTTGGGTTGCTCAAATATGCCACAA
ATAACTCGAAATTTTCAATTTACTTTCAACAGCATAAGATTCTTTAATATTTAGGATTGA
CTGNTTCTTTCCAGTTAAGCACTGAAGGATTATGTCTTGTAGCTTCCCCAAGAGAAGGGG
AAGGAAAAAAGCACTATGTTAAGGATAATACAGAACTCTTTGAACATTTTGGGTAG
TACCCTGCCCCGGGCGCCGNCAGGTACCAAGTGGAGG

Table 1

Sequence 389

CCGGGCAGGTACTCTTGGATGTGTTTTCTCACCAGATGAGCAAAGAAAGGTTTGCACAG
AGGAGTGTGAATGTGTGTTTGTGCTGGCTGAATGGCAATAGATGTCTAAGGTGGATTCA
GTGTCTGGCACACTGAGACACCTCCAAGAAGGAGATTGATGCATCANGTTACGTTTAACC
TGGAATATCTGACTACCCCTGAATCCACCCAGAAAGGGGGCCCAACACCCTTGTCCATTT
ATGGGTATTTTTTTTTCGAAGTTATTAAGCATATTCCTTTTCCACGAACCTCTTCTGTACC
T

Sequence 390

CCGCGGTGGCGGCCGAGGTGTTTGTGTTTGGTTTGGAGCAAACTGAGGTAGTCTTAACA
TTTCTGGGACTGAATCCAGGCAAGAGAAAGAAGAAAAAGAAAGAAAAAGAGGAGGAAA
AAGGTAGGGAGAAATAAAGGGAGGAGAGAGCAAGTCAAGTCAAAAAATAGTAGCAACGGGAA
CGACATCACATTCCTTGTGNTTCCCTCAGCCTGGAAAAACATATTTAATCCCCAGTGCTT
TTTACCGCCCCGGAAACAAAGAGACTAAGCCAGACTTATGGGGGAAAGGGNAGATAAGAA
GGATCCTGGAACCTTTNAAG

Sequence 391

TGCTTCCTTACTAACAGTGAGGGATGACTTTCATCAGTCTTTTATCACCTGAACAGTCTT
CCGGCCATAATGATAGTAAGCTGATGCAGCTGTGGTGAAGCTGTAAACACCT
TTTATGGAAGAAAAAGAAATAAAATGTAGTTGTCAAGTCTAAAAATAGTAGCAACGGGAA
TCATAATGAATACATGCAATGAATTTAAATGTAAAAATGAATTTAAAAAGTAAAAAGGG
CTCTGTGGTGAATTTTTCTTAACATAAGAGTCTAAATACACTGCTTTTCTT

Sequence 392

CCGGGCAGGTACCGCATCAGCAAAAGTGCCTGGCTGAAGGACACTGTTGACCCAAAACCTG
GTGACCCTCAACCACCGCATTTGCTGCCCTCACAGGCCTTGATGTCCGGCCTCCCTATGCA
GAGTATCTGCAGGTGGTGAACATGGCATCGGAGGACACTATGAGCCTCACTTTGACCAT
GCTACGTCACCAAGCAGCCCCCTCTACAGAATGAAGTCAGGAAACCGAGTTGCAACATTT
ATGATCTATCTGAGCTCGGTGGAAGCTGGAGGAGCCACAGCCTTCATCTATGCCAACCTC
AGCGTGCTGTGGTTAGGAATGCAGCACTGTTTTGGTGGAACTGCACAG

Sequence 393

AGGACAAATTCAGTCCCAATACTCAATACGTATTATAGATGACTATGAGTGCAAACTTA
GGATGTGATTTTCTGAATAATTGTTCTTTGTAGGATTTGGTTACATTATTTAAATGAAA
AAGATCTAGTTTTAGTGTGAGCTCAGTAATGTTAATTGGTTAAGTTCAATTGTGAATCTTG
AGTTTTAGATAAGNAGTTATTTTTTCAATACACTTCTGTTTTAGTGATATTATATCA
AGAAACAACGTATTCAAGAGCCATGGCTGACAGTGCCAGATATACTTAGGGATAACATC
AAAATGCAATTATAGTTGCTATAACGTTAGATACTCGGAATCAAAATTT

Sequence 394

ANACCCACTCACTNNNAGGGCGAATTGGNAGCTCCACCGCGGTGGCCGGCCGAGGTACAG
TGATAGGTATCTTTCTTTGGAGTTTTTTTTTGTGCATATGTGTATAGTTTTATGGGTTT
TGAGTTGGTGACCAGTAAGTTGCATGTAGTGCTGGCACTTACTTAATACTATTTCATGAT
ATTGTTAATAACTTGTATAGGATTGATTCCCAATTACAGTCTCTAAGATTGTAATTGA
TATTATCTGAGAGGTAGTGTGACAACCTTTCTTTGTTGTTACATTAAGCCGAAAAACATAA
TACTAATAGACAACTAACAGTTTGCTTATCAGGCACATCAACTAAGGCACCTCCCCCAT
GCTAAGTTTCTCCTGGATATATGGAAG

Sequence 395

AGGTACATAATAACAAGTTTCAACCAGCAAGAAATTACTAATATTGACTGTGGAGTTTT
GGCTGTTTTAATAGTTCTAACTCATTATTCCGTAATTCAACACAGCACTACCAACACAGC
TGGCAATGACAAGACTGGGAGTATCAAACTAGGATTATTAGGCACAATCCAGGTGGCCTC
TGCAGCTGTGTCTCTCTTCTCTTCTGTTCTTATAAGGGCAGGGCCTCCTTCAGGAACA
GCCACCACTGAGCTTCTCTCTCTCTGTTGCTAGTTGGATTGTCAGTGTTCAGCATCTT
TTCGATGATTTACCTGCCCCG

Sequence 396

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTCCATGGGCCCCTGT
TCCCATTGATGTATACTGCTTCTTACTAACAGTGAGGGATGACTTTCATCAGTCTTTTA
TCACCTGAATAGTCTTCCGGCCATAATGATAGTAAGTATAAGCTGATGCAGCTGTGGTGA
AAGCTGTAAACACCTTTTATGGAAGAAAAAGAAATAAAATGTAGTTGTCAAGTCTAAAAA
ATAGTAGCAACGGGAATCATAATGAATACATGCAATGAATTTAAAAATGAAAAATGAATT
TAAAAAGTAAAAAGGGCTCTGTGGTGAATTTTTCTTAACATAAGAGTCTAAATACACT

Table 1

GCTTTTCTTTAAGAGTTCATTTTAA

Sequence 397

TTGTCTGAGCTACTGGAATGAAGTTCACAGGTCTTGAAGACCAATATTATTTGTCAATAT
GTGGGGATAACCTGTAGCTGCATTCATGAGGTAGCAAATAGCAGTTTTGGCCTGTGGGGT
GAACAGCTAAACAGTGTTCTGGCATCAGATAACACGGCACAAAGGGATTGTGCTAGCTC
TTTTGGAGAAAATTTATGTCCAGTCTCAGGATCTGTGGACAATAACGGAAAACCTTTGAAT
ATTCTGACAAGTTGCCATATTAGGAGTCAGTCTTTACTTCTCTGAGATTCCCAGGTCA
TCCATGATTTTTTTTTTAATTTGAGACAAAGCCTCACT

Sequence 398

NACACCCACCGCGNGGCGGCCGCCCGGGCAGGTATGGNTCCGNGGATGCAAAACCCCTG
GGCCGCAAGAAGGGAGCCAAGCTGACTCCTGANGAAGAAGAGANNNGAAACAAAANCCGA
NCAAAAAAAAAAAAAAAAAAAAAAAAAAAGGCNNGNACCCCGGCCCGCCCGGGCAG
GNACCNGACAGNAGTTTAAGANGAGAGAGGNNAGGGNCCACNCGNNNAAGCAAGAGANA
GGNCGGGGGGCGNNNNGGNNNAACNANGGCCAGGAGANNGGCGNAAAGAGAAGACGACGA
GAGNAAGGAAANAAAG

Sequence 399

CTCACCGNGGTGGCGGCCCGCCGGGCAGGTACACGGACCGCACGGAGAAGCTGAGGCCTG
AGATGGAGGGGGCCCGGCAGCTTCACCATCTTCGCCCCTAGCAACGAGGCCTGGGCCTCCT
TGCCAGCTGTGAGATGACCTCCGTCTGCCCGGGGGACTCTTATGGGGAACTGCCTTACTT
CCCCGAGGGGTGGGCATGATGAATGGGAGCCTGCAGTCATTTCTACTGTTTCAGGAAGC
TTTCTCCTTAACCCCTTAGAAAAGGCTGTGGAACCTTGAGCTAAAAATATGCTTACCAGGT
TGCGTCTAATGCCCCCGTTCCTACTGGGCAGAAAGACTTGGGTGCTTCCTGAGGAGGG
ATCCTTGCCA

Sequence 400

AGGTACTGCTTAATCTTTTTTCTCCCTCCCTCTAATCCTTTTTTGAAGTGTACATTTG
TCCTAATAGCAAGTTAGGACATGCTGTGGCTCTCGAGATTCAATGGGACAGCAATGCAG
CAAATCTAGCCATAGTATTTGCTCTCTAGCCCTGCCCTTTTTCTGTCCAGTGAATAT
CAAAACAGGTAGAAAACATGGCCTGAAGGATTGTCTCTGCCACCACCTCCATATGCATTT
TACCAGTAGTCCTGTCATACAGGTGAATTAGTTTTATGTAGAACAAGTCATGAACACTT
TAGTGTGGAAAAATAGTATTATATAAAGCTTAATATTA

Sequence 401

AGGTACATTATCAGANACAGTGGTTGACCTCTTTTTCTTTACTCCCTTTTCATCTGAG
AGAGCCTTTTAGAGATCCGGAATCATTGTCTGTCTGCAATTACTATAGGCTTTGGCTCAC
AATTCTGGGGAAAATGCCAATTGAAGGAACCTGCCTATACATTTTATTTCTTTTCTT
CGAGACAGACAACCTCAAAATAAGGTCCAAATATTNGGTTCTTNAATGGTGTCAAAAA
GAATAGTATTATAGGAGGATAGTTATCACAGAATAAGAACTAAATCCCATTTTTTT
TTTTTAGGAAAAAAGACCTTCNATGATGCAGGTGNTGTGTATAAGGAATA

Sequence 402

AGGTCTCAGCGTGGCTACAAGTAAGTGTGGTGTGGAAGCAGAGTAGAGAGAAAACCTGTT
CCTCATTAGAGAGAGAGCCACACTTCTCACTGCTCACAATGAGAGGCCAAAGATTACCCT
TGGACATCCAGATTTTCTATTGTGCCAGACCTGACGAAGAGCCTTTTGTGAAGATCATCA
CTGTTGAAGAGGCAAGCGCAGGAAGAGCACATGCAGCTACTATGAAGACGAGGACGAAG
AGGTGCTGCCTGTCTACGGCCCCACAGCGCGCTCCTGGGGAATATGCACATCGAGCAGC
TGGCCCGACGCCTTCCTGCAAGGGTGAAGGG

Sequence 403

AGGTACATTTCCATGGGCCCTGTTCCATTGATGTATACTGCTTCCTTACTAACAGTGAG
GGATGACTTTTCATCAGTCTTTTATCACCTGAACAGTCTTCCGGCCATAATGATAGTAAGT
ATAAGCTGATGCAGCTGTGGTGAAAGCTGTAAACACCTTTTATGGAAGAAAAGAAATAA
AATGTAGTTGTCAAGTCTAAAAATAGTAGCAACGGGAATCATAATGAATACATGCAATG
AATTTAAATGTAAAAATGAATTTAAAAAGTAAAAAGGGCTCTGTGGTGTAATTTTCTT
AACTACAAGAGTCTAAATACACTGCTTTTCTTTAAGAGTTCATTTT

Sequence 404

AGGTACTCTTGATGTGTTTTCTACCAAGATGAGCAAAGAAAGGTTTGCACAGAGGAGT
GTGAATGTGTGTTTGTGCTGGCTGAATGGCAATAGATGTCTAAGGTGGATTTCAGTGTCT
GGCACACTGAGACACCTCCAAGAAGGAGATTGATGCATCAGGTTTCAGTTTAACTGGAAT
ATCTGACTACCCCTGAATCCACCCAGAAAGGGGGCCCAACACCCCTGTCCATTTATGGGT

Table 1

ATTTTTTTTCGAAGTTATTAAGCATATTCCTTTTCCACGAACCTCTTCTGTACCTGCCCCG

Sequence 405

AGGTACCTCCTCATGACATGGGGTTTAAATAAACTACAAGTTCTATTACCTTTTTTATTT
TCCAGGGAAAAAGAACTTGGGAAGGCTATTTTACACAATTAATTACACATTGACACCAC
AGTTCTGTTTGGATAAATTGGATACTGTATCCTGGAGTTTAGACAGGGAAAAAGTGATCCC
AATGTTTTACTTTTCAGGTGTAAGATTTAAACAAGAATTTGGACCAAAATGTTTCATCACT
GCAGTTACTTTCTGCTTTCCATTTTTAAGCATGTTATCTTCATGTAGTCCACCTGAACAT
CAACAGTTTCAGCCTCTACAGAGTTTCTGTAATA

Sequence 406

AGGTACGTTTCAGATGTAGCCATGACTGGAGAAATTACACTGAGAGGTCTTGTCTTCCAG
TGGGTGGAATTAAGACAAAGTGCTGGCGGCACACAGAGCGGGACTGAAGCAAGTCATTA
TTCCTCGGAGAAATGAAAAAGACCTTGAGGGAATCCCAGGCAACGTACCTGCCCCGGGCGG
CCGAGGTACTACTAATTCTACAATGCCTTTCTCTTTAGTCAGTATTAATAATCTTTTTTA
AAGTATTGGTATGAAAACAAATTTTTGTTGCCCTGATAATGGGAATTTTAAACTACCCA
CAGTTTAAGAGAAAACATAACTTGGTAAAAAAGGTAGCCAATAAAACCACA

Sequence 407

AGGTACTCAGGGGAACTGGAAGCCGCTGGCTCTTCAATTCTGATGATGATGCAGAGAG
CTGCCCCAATCTGTCTCAACGCATTTCAGAGACCAGGCCGTGGGGACGCCGAGAACTGTGC
CCATTACTTCTGCCTGGACTGCATTGTGCAATGGTCCAAGAATGCCAATTCCTGTCCAGT
TGATCGAACTCTATTTAAGTGCAATTTGTATTCGAGCTCAATTTGGTGGTAAATCTTAAG
AAAGATCCCAGTGGAGAACACCAAAGCGAGCGAGGAGGAGGAGGACCCGACCTTCTGTGA
GGTGTGCGGCAGGAGCGACCGTGAGGACAGGCTTTTGCTCTGC

Sequence 408

AGGTACCAAGTTCTAAATGGGCCAAGATCCTGGGGACGCCAAAGTTATTGGCTGGATGGCT
GATGAACTGAGGCCAACTAGAGACTGGTAGCACAACCTGGGGACCACTTAGGGATGGAGAG
TGAACACATCCTGGGCCTGGATAGGACGGGGAGATGGTGAGTGATGGTCAGACGTGGCCC
TTGGCTCTCACTGTTGTTATCCCTCTCACGTTACATAGGGGCACACGCAGGGCCAGCTT
CATGGGTGTGCAACCTGTGCAGCCACTCAGAAGGGCCCCATGCTGGGTTAATGCTTGGC
TGTCACCATCATGAAATTAATAATGGTTGAACAGGGGCCCTGCGTT

Sequence 409

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAATAAAATAG
CAAACAATTATTCTAGGGATATTTTCAAGATTTTACTTCATTTCTTGAAATGCGTGTGCCA
TATGCCAATTGCATTTCTTGCGCAAGAACTAATAGAACCTATTTCACCTTACCTTTTTT
TAAATGTGAATTTAAGTTATTATAGTTCAATTTTATGGCCTTACAGATGGCTTTTTATT
TGTTTGCAGCTGACACTGCAGTTCCTTTTCATGCAAAATACCATAAACTGTTTGATGAAAA
TCATGCCCTAATGGAACTCTCTAGTTTTTCCATATAACTATCCTACTGTACCTGCCCCG
GGCGGCCGCTTCGACCAACATGTGGTGAGCATTCCACGGGCGCATGAAGTCTGGGTGCTG
TGCTCGAGTCTCTGAATATTTTGATAGGAAAGCGACAAGAAAATTCAA

Sequence 410

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAAATAAAATAGCAAA
CAATTATTCTAGGGATATTTTCAAGATTTTACTTCATTTCTTGAAATGCGTGTGCCATATG
CAATTGCATTTCTTGCGCAAGAACTAATAGAACCTATTTCACCTTACCTTTTTTAA
ATGTGAATTTAGTTATTATAGTTCAATTTTATGGCCTTACAGATGGCTTTATTTTGTT
GCAGCTGACACTGCAGTTCCTTTTCATGCAAAATACCATAAACTGTTTGATGAAAATCATG
CCCCTAATGGAACTCTCTAGTTTTTCCATATAACTATCCTACTGTACCTGCCCGGGCGG
CCGCTTCGACCAACATGTGGTGAGCATTCCACGGGCGCATGAAAGTCTGGGTGCTGTGCT
CGAGTCTCTGAATATTTTGATAGGAAGCGACAAGAAAATCAAACCTGCTCTTTGCTGACT
ACTGGNAAGTGAAAAAGATGCTTCAAGGTTTANCCATTCAAAGGAAACCATTAGGCCTTT
TCAAAAAAC

Sequence 411

CCGCGGTGGCGGCCGCGGCCGCGGCAGGTACAGGAGTTTCCCTATTTTGGTGTTCAGCTTGAA
AAAGGACTTGTGAGAATCAACTGTGTCATCAAAATTTAAGTAATGTGCATTGAAAAAAG
GTTGATCATGGGAATATGCAGAATTTCCAATGTATTTTTAAATACAAATAAAATGTAAT
TTAGAATTTTTAATCTTAGGTTTCTTGATTAATTTATAAGAGATCAATTATTGTCAGTCT
TTTTTGATGTTTTTAAAAACATAGTCCAGAGCATGGGCAGAATTGACACCTCTCTTTT

Table 1

AAGTGAAATTTGGATTGCTCACAAAGCACTAGGAAATGTCATGGGGTTCAAATATATATC
CTACACAACCTGGGCAATACATTTTGTGTTGATTTTAGGTCTGTGTATACATTAACAGTT
CATGTAATTAACCTGATCATTTGGGATAAT

Sequence 412

CCGCGGTGGCGGCCGCGGCCGCGGCAGGTTTGGGTCTGAAAGTCGATGAAGGACGCAGATTAC
CTGCGATAAGCTTCGTGGAGTTGGAATAAACTATGATACGGAGATTTCCGAATGGGGTA
ACCTAAGTGAAGCAACCTCAGTTGCATTTTATGAATCCATANTCAAATTAGCGAGACAC
GTTGCGAATTGAAACATCTTANTAGCAACANAAAAAAAAAAAAAAAAAAAAAAAAAAGC
TTGNAACCTN

Sequence 413

CCGCGGTGGCGGCCGCGGCCGCGGCAGGTAACACTCCAAGGTAACAGAATAATAATACAA
TCTTCTATTTATTGCTCCCTATCAATGTTCTAAAAACCTTACATTTATTTAATCCTCATA
AAAATCCTGTGAGGTAGGTAGTATTATCATCCCTAATTAAGAGATGAGGAAATTGAGACA
CAGAGAGATTAATAATTGCTCAAGGTTACAAAAACAGTAGGTGTTAGAGCAAGAATTTAAA
CCCAAGCAAGTCTGACTCTAGAGCCAGGATTCATCACAATATTCATTTCCCTATGAGCAA
ATCTCAAGGTTTTTGGATATCTATAGTAAACCATTATACTTCTAGTCAAGTAACACATA
TGAAATTCATGTCCACACCATGGGTGAAAGAGGTTGTTCAAAGAATAAAATGAATGCCT
TGAAATTTGGCAGATGGATACTACCATGGATAATA

Sequence 414

CCGCGGTGGCGGCCGAGGTAACACTGTTCAATNAGTAAAA
GGTCTTCGGCAAATTCCTTTAGAGTATACTTTCTATAAACTACATGTTCCACAAAAAGG
TCAATTATATACAAATTGATTTGTTTACTTAATCTTATTTGCTCAGATCTTGCAAATG
CAATGAGAATATTAAGCCTGAGGCTAGTTCTCAGTGTATAGGTTTAAACAAATTAAGGCTC
ATTTTCCCAAATCAAAATAGTTTTAGTTTTCTTTTAAATTATGAATTACATTCATAGT
ACAAGAAGAAATGCTTAAGGAAGAAATTTCAAAGAAATCTGAGCNGTTAAATAAAGAGAT
TAATCAACTGAAA

Sequence 415

CCGCGGTGGCGGCCGAGGTAACACTGTTCAATNAGTAAAA
GACAGATAAAAGGCCCAATGAATGATTGTAAATGTGCTTCTCCTATGTATCCATGATGA
TATTGCCTAGTTTTTAATACAAGCTTAAGAAATCAATAAAATGATAGATCTGAAATCTGTA
GATGCCAGTCTGGCTCAGTATTAATACTGACAGTAGTTTTTTTGTGTTTTTAAGAAAGCAA
GTATATTAATAATCTCTGTAGAAAAGATTACAATTTGAAAGGATCATTCTACAATCTT
AGAAGTAAAAAGCAATTTAAGGCAAAGAGGTACCTGCCCC

Sequence 416

TNCTATAGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGAGCTTAATAA
TATCAAAATGCAAATATAGATTGGGTGCACTGTTAAGCTGAATTGCAAATATGGCAACA
CACACTGGACTGGGGTATACCGTTGCTTTGATATCACCATTGTTTGTGTTATGTCATGCA
GACCACAATAGTCAATCTTTGTTTTCTTTTTGTACCTGCCCC

Sequence 417

CCTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGAGGTACTGCCATGGCCA
GTAAAAATGAAAGTGGATAGATACGGAATACACACAAAGTGAATTTTGCTAAAAACAAAT
CAATGGCACTTAAGACATTTCTATTCTAAAAGGCTTATTCTTAAGGCTTTTCTATTCTAA
AAATTTGCAATGTTTTAATTGAATATTANATTTTGTAATGTGGTTTATTTGTCACGTGG
ATGAAATATCAGGAAATACTCACTGCTCAGTGGAACTCTCATGGCTGNTGTTTTTGT
TGTGTTGTTTCAGGATTGGAGGTTTTAAAGCAGGAAACAGCAGTTGTTGAAAACGTCCCC
ATTTTGGGACTTTATCAGATTCCAGCTGAGGTTGGAGGCCGATTGTACCTNGGCCGCTC
TAGAACTA

Sequence 418

ACTATAGGGCGAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACTTTATTATATTGGGTG
TCTTGCTTTTTTGGGCTTTTAGTTAGCTAATGAATGAATACATTAGACACTTTTGGGTT
TTAGTTGGGATTTTACATAGCTTGCAATTTAATTCTTTGGTTCTTTGCTGTTTCTATTAA
CCCACAGCATTATTTAATAAA

Sequence 419

CCGCGCAGGTTTGTGCTATTCAATTATTAACACTAAAACCTTTGGCGGNTCTTGCAATAACA
TTGTCAGATTTTTTGTGATTTCTGTGAAGACATTTTTTTCTTGTCATTCCTTTTGT
AGTANTTGCTGCTTNGGATAAAAAAGTTTGATGTGTGATTTTTTTATTAAACANATAGTA

Table 1

AACCCCTTCAATTATAAGTTAGTNCCTTTGGTGGAAGTAAGGATGGTTTGTTAGGACNTTTA
TTAGGTTCTTTAAATTTTCATTTGGCCACCAACCGTGGACTGGTTTGTAAGCTTAAACC
ACCCCAAAATTAAGTGGTCTGTTNGGCCAAATTAACTTTTTTTTTAAAAATGGGCTTGNAAN
AACCACCCCTTAATAAAATTNGTTCATTACAGNAAAATTATCTTTGTTCAANCNTGNCTTC
CTGGTTTGCNCAAAATACCNCTCTANNNAATTAAGGAAACTTTTAANNACCGTTATGNT
TCCTTGAAGGTTCCCCNTGGGAGGAANCCACCATTGGCCTTAANAANGTCCCNAATTG
GAAAAAAAG

Sequence 420

CCGCGGTGGCGGCCGAGGTACTTTTGGTTATTTTTCTGTCAACAAAAACAGGTATC
AGTGCAATTATAAATGAATATTTAAATTAGACATTACCAGTAATTCATGTCTACTTTTT
AAAATCAGCAATGAAACAATAATTTGAAATTTCTAAATTCATAGGGTAGAATCACCTGTA
AAAGCTTGTGTTGATTTCTTAAAGTTATTAACCTGTACCTGCCCGGGCGGCCCGCCGGGC
AGGTACACAACCTGGAAGACTGCTGTAATAACACAGCCTTGTTATTTTAAAGCTATTT
TGATATTAATTTCTGATTAGTTAGTAAATAACACCTGGATTCTATGGAGGACCTCGGTCT
TCATCCAAGTGGCCTGAGTATTTCACTGGCAGGTTGTGAATTTTCTTTTCTCTTTGGG
GATCCAAATGATGATGTGCAATTTTCATGTTTTAACTTGGGAACTGAAAGTGTTNCCATA
TAGCTTCAA

Sequence 421

CCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTTTTTTTGGCAAAGATTTTTTTATTTT
TACTGGGGAGGGAGGAGGATAAATAGAACTGTTTTCCAATTTGCTCTCCACTGTATACAC
ACATACCCACACACATACATAAACATACATNCACCAAAAAATACCCCAAAAAACAAA
AAAACCAGGAATCAAAAACCAAAACACCTCAAACCTGCACCAATACTTCATATTTGACC
AAAAAATATCCTGGGAGGAAGTGCAAAATGCAAAATCAAATGACCCGAAAAATGCTGAA
CAACAGCATTATTAATATACAAAATATTTATATTACTGAAGTAGTAACAGGTGATGTTT
TCCATGTCTGTAAAACCTTGAACACATAGCTGATTTGTTAAATCTAGTCCATGCCAGC
TTNCAAAAACCAAACT

Sequence 422

TATTGGGCGAATTGGAGCTCNCCNNGGTGGCGGCCGCCCGGGCAGGTACNATATACGAAG
ACTCTGAGCTGTTTGCCCTCCGATGGTTTCCAGTATTTGCCCGTTGTAAAGCTCATTAAGG
CCAACTTTTACTTTCAATATGTGATTCTGCAGAATTAATTAAGGAGGCGCTGATCCATG
CTGAGAGTATCATCAGAAAATGCATTATTCACAGGTGCCAGCAAAGGTGNTTCTCCATT
TGGCCTTAAANCCAAATNCCCAANCTTNNTTGGGCCCAAAAANNCCCGGAAAGNGGGGT
TTGTTTTTTTTCCCGCCCCNTTNAANNATTTTTTTTGGGAAAAANNCGGGAATTTGGCCC
NTNTTTTTTTAAAGGGGGGGCCCCCCTTTTTTTTNAAAAAAANANTTTTTNTNTNCC
CCNNNTTNNNGNCCNTTNTTGNNGGGGGGNNCNCNCCCNCAAAAAAANNAAN
NTNNTTTTTNCCCCCNNNNANGAGGGGGNNCCCCCTNTTNAAAAAAANNAAN
NNNNNNNTTTTTTTTTTTTTTTTNC

Sequence 423

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGATTTAGTAA
GTCTCATAGGTTAAAAAAAAGTCACCAATAGTGTGAAATATATTACTTAACTGTCCGT
AAGCAGTATATTAGTATTATCTTGTTACAGGAAAAGGTTGAATAATATATGCCCTGTATAA
TATTGAAAATTGAAAAGTACCTCGGCCGCCCGGGCAGGTACCATCTTGGCGGATGACTTC
AGCATTAGATGGTCAGGTGATTTTTTTATTAATAGGCGCATTCAGTTTGAAAAGGCAG
CTTTTCATTAATGTCCCAGGTAAGGAATATGGCCTATACAGTACCTCGGCCGCTCTAGA
ACTAG

Sequence 424

CTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACAGTAACATCCAAGAGCC
CATTCTACAGTGGGTGGTTTTTGGTCTTTTTATACTTTTCTCAAAGTCACTGATGTTG
TTCCTGTAAATGTATATGCA

Sequence 425

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGGATCTAAAAACAAAC
AACAACTCAAAAAAAGAAAGAAAAAGAAAAAGAAACCAATGCAGGTGA
AGGTGTTACCAGGAAGTTAAGCATGCCAAAAGGTGTTCCGTGCGAATGAAACCTAAAGC
CAAGGTACTCTCACTCTTCCAGTCAGAGTGGCACATCTTGAGGTCACGGCAGGTGCGGG
CGGGGTTCTTGGGCTGCCCTCTGGGCTCCGAATGTTCTCG

Sequence 426

Table 1

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAAAATGTAATCTA
GTTGGCAAAGGTGTGCGCTAAACACGGAACCGAACATGCATTGATTTGGATAACTTTTG
AGGGTTTTTGNCAAATAGCATGTGAAGAGTTACNTTTTTCTTAAAAGATTGGTGGTCCCA
ATGTCAGAGTTCTTGAACAGATAACTGAATGATAGATTTTTTTTTTAAAGATAAACTT
TACAACCTGCACATTTGTTATGCATACTAAATGGNGTGTTAAAATTAGGGTTTCTTTGCC
TNTCTACACTACACTAATCTGCCTAAAGGNGGTTGTTTCATATTTATAATGCTAATTATC
ATACCTACCTACTTTAAATTTTAGGTAGAAAATTATCTGATTTAAATACAAACATNTTT
TCTCACATTGAGTAATATGCATAATGTAAGTCAAATGTATTTTCAT

Sequence 427

TCACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTGGCA
TATATTAGGCCTTCAAATGATGATGGATGGATAGACAGATAAAAGGCCCAATGAATGATT
GTAATGTGTCTTCTCCTATGTATCCATGATGATATTGCCTAGTTTTTAATACAAGCTTA
AGAATCAATAAAATGATAGATCTGAAATCTGTAGATGCCAGTCTGGCTCAGACCT

Sequence 428

CTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACGCATACAGGGCAGATGT
CAGAGATTATGATCACAGGGTGCTGCTCAGATTTCCCCAAAGAGTGAAAAACCAAGGGAC
ATCAGATTTCTTACCCAGCCGACCAANATATTCTGGGAATGGCACAGTTGTCNTCAACN
TTCCACAGNGTGGNTGNTGTTTNCNCCNTTATCCCTNTTGTCCCNACCCCCAAAAGA
ANANTNGGTTNTNTGGCCCCNAAAAANNAGNTTTTTTTTTTTTAAAAAANAAAAACCT
GGGAACNTTNGGCTTCCCNCAANGGCAATTTNTNNTTNTTNCCTTCCCCGGGGGGNG
GNCCNTTTTTNAAAAACANAGGGGNNNCCCCCCCCNGNGNCGGGGANNATTTTNNNG
ATTTAAAAANTTTTTTNNNNCCCCCCCCCTNNAACNCCNTNGGGGGGGGGGGCCCC

Sequence 429

TAACACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGCG
TGTTCAACCGCAACGAGGATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCC
TGGCCTCGGCTTTCTTCTTGGTGGTCGACGCTATTTCCCCCAGATCAGCAACGCCACTG
ACCGCAAGTACTTCTTTGGCAGACGGCTATTATGTTTTACTTTAGTCCGCTATTGTGA
TGCCAGAGAACTTGCAATTTGCCAGGGAATAATCTCCTGAGATGCTATATTATGAAGTAGA
ATGGTGTAGTCTAATTCAATAAAGTCATCATTTCTTTGCACTTGCTTGGACAGTTTGAAT
TTTTACCATTTTATACCATGTGTCTTTCAGTAGGAATTTTGCATATTATATAACCACAG
GCAACCCAAGCTAAAATGTAGAACGGAGCCGTCATTTCTGGGAGATACATTTCAAA

Sequence 430

ATCACTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTTACAGCTG
ATCCAGAAGTCAATATTCTCCTCACTATATTCAAGAAAGCTTTGAAAGCTGCC
AGCCACATTCATGACTAATCAGGTTTTCCAGTGATTCAGCCCATTTCTTGACTTCTCT
TGGCTCACTCTCTGGCAAATAACCACTTTGTCTTNTGGTTGGGGGAAAGAAATGGGGTC
ACAGGAATCAAAATTTTGCAGCAGGGAAACCTAGCCCGTGGTTTTTCATATTNTTGGACT
CCTAAAGAAAAANAAACCCGAAAAACCTTGGNAGGCCNTTTNGCAAATNTTNTNTAAA
ACNGGGTTGGANATTTCCCAAGGGGGGANNAAAAANATTNGCGGGAAGNGGGNGGNCTT
TTTTTTTTNTNTTAAAAANAACCCGGGGGGGGGGGNANAAAAANNNAANAANTNCCNN
CCCCCGGGGGGGGGGNNTTTTNAATTTTTTCCCCCCCCCCCCCNGGGGGGGGGGG
GGGGGGCCCCCCCCCTTTTTTTTTTTTTTTT

Sequence 431

AATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAGAGACCTCCTTACTTACCCCCCTTCT
CCTTCGGCTGGAGCTCGGCGAGCGAGAGGCGGCGCTGGCGTTGGAGAGCGTGCTTGAGAA
TGAAATGTTTCCCATCATAGTGATTCTTAAGCACGTTCTCCACGTATGCGGCGTGCTAG
CTGGATGTCTTNGGCATAATTGTTACACGTTTGGCATGGATAGCACACAGGNTGGGTGT
NTTAAAAANGGCNAACCAAATGGGCCNTTTTNGNCTCCNAAAAAACCANAGTTTTTC
CTTTGNANNNCCCCAAATTTTTTTTNAAGGCCCGNGAAATTTTTTNCNCAAAACCCCT
TGGANGGGANATTTNGGGAAAAANAAAAATTAAGGGGGCTTTTTTTTNAACCCCTTAN
NTTNTNGGGGGGGCCCCAAATTTTNTTGNCGGGGGGGGGCNTTTTAAAAAANNGG
GGCCCCCGGNGGGGGGGGGNANTTNANNAAAAAATTTTCCCCCCCCCCCCCCCCGG
GGGGGGGGG

Sequence 432

GGGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCGATGTTGATCTTCANGTTTATCTCCC
CGCGACTTGTCCACGTAGAGCTCAGGATGCACCTCCGTGGTGAGGTAATACTGCACCTGC

Table 1

CCGGGCGGCCGAGGTACATGCCTAGACCTGGGCTCCGGCCAGCGCCCAACAGCGTGGATG
TCGATGACTTCATCAATACGAGAATACAGGAGGCAGACAATGACCCACG

Sequence 433

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGTATTGCCATTTCTCTGCTATATAGT
AATATTTCTTGACACCAATGGTAATGTGTTTCTTTCTCAGCACCAGATGTGTCCAT
ATGTATTTAAACAGTAGGAGCATTGTTCTAAATTCATCTATGCTATGACATATATAAAC
CCATTATTATTATGTTTCACTAAAGTTCAGCACTTTAGAAAAGTTTCAGTTCAAAGTCA
TTTTGGCTCATTCAATTTAGATAATACTGACCATTTTGCACTACAATTTCAAAGGAACAT
GAGAAATTTGGATTTCTTTGAAAGAGTCAAATATGTAATTACAGAATTGAAACACTGNGT
TAATCCCAAAGGGGTGGTAATAATTAACATTAA

Sequence 434

CGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGGAGTTTCCCTATTTTG
GTGTTTCAGCTTGAAAAAGGACTTGTCAGAATCAACTGTGTCATCAAAATTTAAGT/ATGT
GCATTGAAATAAGGTTGATCATGGGAATATGCAGAATTTCCAATGTATTTTAAATACA
AATAAAATTGTAATTTAGAATTTTAACTTAGGTTTCTTGATTAATTTATAAGAGATCA
ATTATTGTCAGTCTTTTTTGATGTTTTTAAAAACATAGTCCAGAGCATGGGCAGAATT
GACACCTCTCTTTAAGTGAAATTTGGATTGCTCACAAAGCACTAGGAAATGTCATGGGG
TTCAAATATATATCCTACACAACCTGGGCAATACATTTTGTGATTTTAGGTCTGGGT
ATACATTAACAGTTTCATGGAATTAATACCCGGATCATTTGGGATAATGNAAGTGNAGTTA
GTTGTAGATGAAGTAAAGNTATAAAAGGAGATTAAAAATGCGGTAACCTTTTA

Sequence 435

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATTGATA
TGGAATTATATATTTTTACTCTATGTTTCTCTACATGTTTTTCTTTCCGTTGCTGAA
AAATATTTGAAACTTGTGGTCTCTGAAGCTCGGTGGCACCTGGAATTTACTGTATTCATT
GTCGGGCACTGTCCACTGTGGCCTTTCTTAGCATTTTACCTGCAGAAAACTTTGTATG
GTACCTCGGCCGAGGTACACAACCTGGAAGACTGCTGTAATAACACAGCCTTGTTATTTT
TAAGTCTATTTTGATTAATTTCTGATTAGTTAGTAAATAACACCTGGATTCTATGGA
GGACCTCGGTCTTCATCCAAGTGGCCTGAGTATTTCACTGGCAGGTTGTGAATTTTCTT
TTCTCTTTGGGGATCCAAATGATGATGTGCAATTTTCATGTTTTAAGTTGGGAACTGAA
AGGGTTCCCATATAGCTTCAAAAACAAAACAAAATGTGTTATCCGACGGGATACT

Sequence 436

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGGAGTTTCCCTATTTTGGTGTTCAGCTTGAA
AAAGGACTTGTGAGAATCAACTGTGTCATCAAAATTTAAGTAATGTGCATTGAAAATAAG
GTTGATCATGGGAATATGCAGAATTTCCAATGTATTTTAAATACAAATAAAATTGTAAT
TTAGAATTTTAACTTAGGTTTCTTGATTAATTTATAAGAGATCAATTATTGNCAGTCT
TTTTTGATGTTTTTAAAAACATAGTCCAGAGCATGGGCAGAATTGACACCTNTCTTTT
AAGTGAAATTTGGATTGCTCACAAAGCACTAGGAAATGTCATTGGGGTTCAAATATATAT
CCTACACAACCTGGGCAATAATTTTTTGTGTTTTAGGGCCTGNGTATACATTTAAC
AGTTTCATGTAATTAATACCTTGATCAT

Sequence 437

CCGCGGTGGCGGCCGCCGAGGTACTTAAGCACTGCAGATGCTCCAGTAATATGCCCATAAGTT
CCTTTCCAATTTCAATTACTGGGAAAATATACATATGGACAATAGATGGATGCCACAATA
AAAGGCTGGCAGCCTAACCTCACATGAATTTTCCCTACCTCTATTTAGGGTGACAGTG
GAGGGCCTCTGTTTGCTTTGAGAAGGACAAATACATTTTACAAGGAGTCACTTCTTGGG
GTCTTGCTGTGCACGCCCAATAAGCCTGGTGTCTATGTTCTGTGTTCAAGGTTTGTTA
CTTGGATTGAGGGAGTTGATGAGAAATAATTAATTGGACGGGAGACAGAGTGACGCACTG
ACTCACCTAGAGGGCTGGAACCGTGGGTAGGGGATTTAGCATGCTGGAATAACTNGCAG
TAATCAAACGAAGACACTTGTCCTCCAGCTCCAGCTACGCCCAACTCGG

Sequence 438

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAGAAACATTTTCT
TTTATTGTTACTTGCTTTTTAACTTTGTTTAGCCACTTAAAATCTGCTTATGGCACAAT
TTGCCTCAAAATCCATTCCAAGTTGTATTTGTTTCCAATAAAAAAATTACAATTTAA
AAAAAAAAGAAACAAGAAAAAAGAAAAAANNAANANAAAAAANAAANC
ANAAAAAANAAAAAANTANANAAAAAAGGAAAAAATTCGCTANCNAAAT
AAAAAANAAGAAGAAATGGTTTTNGCANNNGNCCNNGNGGNCCTTTCTTTTNA
NANATNTTTTNAANGNTGNNTAAAAANANANNAACAATGTNNNNNAAAAAATCTTTT

Table 1

TTNTAAACCNNGGGGCGNGTTNNTTTTTNNAAAGCAACCNNGNAAAGGAAAGNGGTTTTTTTN
AAAAAAATTATNGGGGTTTTTTTTTTTNNAAAACCCNCGGGGGCCCGGGTTTTTTTTT
AAAAAAGGGGGGGGGGGCA
Sequence 439
CCGCGGTGGCGGCCGAGGTACCACGACTCTTATTTCTCGCAGCTTTTGAGAATTCTAAAG
ATACCTGAGTCATTTTAAATAAATTTTCAGCTTTCTTTACCAAACCTACCCTTAACCGGATT
CTCCTTGAAATGACATCACCTGACACCCATGGCATGCTGCATGCCACAGCTAGATTACT
TTTTAGTGCGCCACGCACTTCTGCTTTTATTAGGTGAGGCAGAATCAAGATTCCCTTTT
GTTGGATCTTGAACCTGTTTCATGCCACTTTGATATTCTAAATTCATACATAAACCAATGA
AATATATGTGTTAGAAAAATTGCTATTTCTAGCTGGACGCACTGGCTCATGACTATAATC
CTACCCTTTGGCAGGCCGAGGCAGGAGGATTGGTTGAGGCCCAAGAGTTTGAGACCAGC
CTGGGCAACATAAGTGAGACCCTGGTTTCTACAA

Sequence 440
CCGCGGTGGCGGCCGAGGTACTTGGCATATATTANGGCCCTTCAAATGATGATGGATGGAT
AGACAGATAAAAGGCCCAATGAATGATTGTAAATGTGTCTTCTCCTATGTATCCATGATG
ATATTGCCCTAGTTTTTAATACAAGCTTAAGAATCAATAAAATGATAGATCTGAAATCTGT
AGATGCCAGTCTGGCTCAGTATTAATACTGACAGTAGTTTTTTTGTTTTTTAAGAAAGCA
AGTATATTAATAATCTCTGTAGAAAAAGATTACAATTTGAAAGGATCATTCTACAATCT
TAGAACTAAAAAGCAATTTAAGGCAAGAGGTACCTGCCCGGGCGGCCGAGGTCCCCCTT
TTTTNTNTTTNATTTTNCCTNTTTNTCTTTTCTTNTTTACTGCCCNCCNNNAGTTTGGG
GTTGGANCCCTTTTTTANTTTTTTNCACACCCCGNCTTTATAANTAACCCCTTTTAA
NTTTTTTTTTTAAAAAA

Sequence 441
AGGTACCAGGTTTTATTTTTTACCTTATTCTCTACTTTAAACAAATCATAACTTTCTCTT
TAAGCCTCTGCTATAAATTCCTGGCTCTCCTGGGCTTNCATATTTTGGGGGCTTGGGG
TGCAAAAGTGAGATGAAGTTCTTAGCTCCAGGTTTTGGGGTAAACCANAGGTAGGTAA
CATTTGTTGGGCATTTATTTTGAANTTAANCAANTACTTTCTTGNNACTNGGNTGCCGG
GTGGCTCACGNTTGTATNCCCAGCACCTNTTGGGGGAGGCNTTGAAGACCAGGTNGGG
ATNCAACNNTNAGGGGTCCGGGTAGGTTTCTNAGGAACCATGGCGCTGNGCCNCAAAACN
ATTNAGGCCAAAAACCCCTTGTNCNTTTTNACTTAAANAANANTNACCAAAAAAATT
TAANTATTGGGGGNTGGNTTTTTTGGGGCAC

Sequence 442
CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCTTGCCTTAAAT
TGCTTTTATGTTCTAAGATTGTAGAATGATCCTTTCAAATTGTAATCTTTCTAACAGAG
ATATTTTAAATACTTGCTTTCTTAAAAAACAAAAAACTACTGTCAGTATTAATACTGA
GCCAGACTGGCATCTACAGATTTTCAGATCTATCATTATTTATTGATTCTTAAGCTTGATTA
AAAACCTAGGCAATATCATCATGGATACATAGGAGAAGACACATTTACAATCATTATTGG
GCCTTTTATCTGTCTATCCATCCATCATCATTTGAAGGCCTAATATATGCCAAGGTACCT
GCCCGGGCGGCCGCTCTAGAACTAGGTG

Sequence 443
CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGNACTGACAGGAGA
TTGGCTTTTACACTAAAAAGACAGAAATGGACTAAATAGGAACATAATTTAGAGTTT
ATGAGTCAGTTTACAATATGCCATATTAGCGATCTCATGATGATTGAGACCACAGTCTGG
GTTAAAGATGTCTTGACCTCTGAGGCTAGCATAACATATATGAGAATACAACCTTGCCCTAT
TTCCAGAAAATCTGTATATTTTATAGAATAACTTTATTTACAATTTCTATCATCCAATT
ACTCACTAGGCATTATTTGT

Sequence 444
ACACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGCGGCAGGTACAGCAGA
AGTTTGCTGTCTCTAGGATTCATATAGCACCCACAGAGCTCCAAGTAACCAAAATCCCCC
AAAGACAGGAGGTGTGGCTGAGGAGGAGTGACCATATTGAGTGTAGCTTTGAACGCCTCC
GTTACTCTTTAGGAGGCGACCGCCCCAGTCAAACCTACCCACCACGCACTGTCTCCTTCCC
AGATAAGGGGAACGGGTTAGAAAAATCAATTTAGCAAGGGTGGTATTTCAAGGTTGACTCC
ACTAGAATAAGCGTCCCAGCTTCAAAGTCTTCCACCTATCCTACACATGCTAAACCAAT

Sequence 445
NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCTTTTTTAAAAACAC

Table 1

TGTAAGTAACCAAAATATGTGAGGACTTACTATTTTAAATGGAATGGAATGAGCTCC
ATAGATTAGTTTGAATATAAAGTATATAAAGTGCATCAGTGGTTTATATAGGCTTAA
AAACATGTTATCTTACAGTCCTTTAAAGCAGCCATAGAGTTTGTATCATTTTCAAGCCA
ATTTAGTCAGGGATTGAATTGTTGATTATGGATGATAAATGTGTCATATCTTATTAA
TATGTCTCATGTCTCGTTCCTTCTTAATATGATTTAGCTGGAATTCATTTCTTTTCGTT
TCATGTTTAAATTCATAAACGTTTAAACAATTGGCATATATACTTGGCATTCCGTGCCAC
CAAGGGATTGTAATCCAAGCCTGGGAAAATCTTAAATTTCTTTTACTTAAATCTGGNA
TTTTGTCNTCATCTGCCACCTTTTTTTTTTTTT

Sequence 446
CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGCTCCT
AAAAGAAGATTACTGCTGCCAACTTAAGTCATCTCCGTTAACGAAATTGCATTCTTGCG
CAGAGTTAAACAACAAGAGAAATTCAGTGGTTGCTGGTTCTGAATGTCATTTTCTCTCC
CTGGTGTGGTTTACATTTTCAGCTTCTTTCCCTTTTCTTCTCTCCACCCTCAAAATTC
TGCTTAGCATTTGTGTGCTTAAATTAATCCACTCTGTGCTTTATTGTTGGAGATGTGG
ACAATACAAAGATTGGGGTGGGGTCATACAGTGTATACAAAACACACACTATGTGTT
TGGACAAATTCGCCAAGCGTGAGAATCATCAAGTAGTGAGTTTAAAGTTTGAATCAAA
GACCAACATTTGGGGTGTAAAAATATCTCCGCTTGAAATGGNTCCTGTTAAGTG
TTAGATNGGAGANCCCTTGATTCAAAAACAAAACCGA

Sequence 447
CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAAGAGAGAAATTCAAACAAATATTGCTGT
TCTTCAGTTTGTGTTGTGGAATTTGAAATTACTCAAATTTAAATAAATTACTGGACTGT
GGAAATAACATAGAATTGAAGTTTAAATTAATACCACTCAAACGAAAAGAACAGTAGTT
TTTGTAGTTTATATTGATACTGAGGCATTAGGGAGGCATGAAGGAAGAGGAATGAGG
ATTGAGACATGTGAAGACATTGTGCATTATATCAATGTGCATTCTGTAGTTCATTAACA
AGGTACCT

Sequence 448
CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAATGAC
CAAAATTTTATTTGACTAAATCTATTATGCATGAGCATGACAGTCTCCCGTTTATT
TGACTTTGGCAATAAAAAACAAGCAGCCTTGTAATTCATTGTGAGGTGGCTACAACCT
ATAATATGCACAGTGATTTTAAATAGGCTTTTGCATGCCTTGCATGAAAGGTGCTACA
TACAAACCTGTTTGTGAACCTTTTGGTAACCACCAATTTAAATTTGGATGAAAGCAT
TTCCACATGGACAGATCTGAAGCACATTATTGGAGCTCTGAGCCAAAGCTATTACCCTGT
ATATTGATTTCTCAGTTTCTTGGGGTTAGGTGTTGATTTAGAATACAGCCAGATAAT
TTAAAGCATGTGAGCCCCGCTTAGGAAAATGAAAATG

Sequence 449
CCGCGGTGGCGGCCGCCCGGGCAGGTACAAAAATAGGAATGGGTTTTTACCTGTTTAA
GTCACTTTGTGTTTATAACAAATTTACTTTAGCTGAGGAACAAAGGTGACAAAGATTC
TGTTGGTGGCTGAGAGTCAAAGCAGGCCAATCCACACCATTTACCTGAAATATTTTTCAGG
CTAATTTATACTTTATGGATTTCTCGATACAAGTTTATTAGTTTATTCTCCATATACA
AGTTTATTCTCCAGAATAGCAGCAAATAAACTTGAATTGGATGTACCTCGGCCGAGGT
ACTACGTGCCAGCTCTAGTTTTCAGCCTTGGGAGGTTTTATTCT

Sequence 450
CACTACTTAGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACTGCATATAAAA
ATGGTCTAAGATGCAATTTTCTCCATTCTTTTGTCTTTTAAATACTGAGACAGCAT
TTTAATCAATATTCTAGGTTCAAATGATACATTAATAAATCATACCAACCTTTAA
TCATTCTACATCCATTTTAAAGTTAGCTAACAAGATGATGTTTCACTAAATAAATA
TCCAATCATCAGATTAAAGTGTAAGTTTGTGTGAACAGGGAAATTAGATCATTTCTCTA
AGTTTTAATTCCTATGTTTCTGAATGTTTCTTGAATTTAAATTCATTTATCATCTTAC
TTTCAAAACACGGCATCTCTTTTACCATTCCACAGAGAGAGAAAAGACTAGAAAATAC
TTTTAAAAAATAAATATTTTAA

Sequence 451
CTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTACGTGCCA
GCTCTAGTTTTCAGCCTTGGGAGGTTTATTCTGACTTCTCTGATTTTGGCATGTGGAG
ACACTCCTATAAGGAGAGTTCAAGCCTGTGGGAGTAGAAAAATCTATTCCAGAGTCAG
AGGAGAAGAGACATGTACCCACCTCTGAAGATGCTGGGGGAGGCAGCTGGGATGGGAGC
CAGCCCCATGCCTGTCTGTGACCCACAGTGGGTGAGAGCCCGTCACAGTCTGGGGTGT

Table 1

GGCTGCTCTGGAAGAATTAGGAGGCAGCCATAATAAGAGTCTTCAGAGAGATGATGGGAG
GGCCCACTGAGGACAGGAACAGGAGAGTNGATGTCCTATAATAAGGGGGC

Sequence 452

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGGAGATGCTGCC
TTGAGACAGCTGAGGTACCGCGGCGCGCACAGGCCCGAACGCTCAGGAGTGTGGTTGT
TAGGAGAGCACACAGGTGTTACATACAGTGGCATTGGGACACAATCGTTGGAACCTGAAG
AATCTGAAGTTTTTTTTACCACCATCTTTTCTACTCTGTAAGGAAGTAGATCTTTATGG
GGAAAAGAGAATTTGGGGTGTCTGCAAGCCAGTCAAAGTGGCACAGCAAATCATATAAA
TCGAATTAATGGACAACACCGTTAGATGTGTATGTAAAAATTTCTGTTTCATATTTTT
CCTTTCACCTTTCGGTTTAAACATGCTATATGTACCTCGGCCGCTCTAGAAGTAG

Sequence 453

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTGGCATATATTA
GGCCTTCAAATGATGATGGATGGATAGACAGATAAAAGGCCCAATGAATGATTGTAATG
TGTCTTCTCCTATGTATCCATGATGATATTGCCTAGTTTTTAATACAAGCTTAAGAATCA
ATAAAATGATAGATCTGAAATCTGTAGATGCCAGTCTGGCTCAGTATTAATACTGACAGT
AGTTTTTTTGTTTTTTAAGAAAAGCAAGTATATTAATAATCTCTGTTAGAAAAGATTACA
ATTTGAAAAGGATCATTCTACAATCTTAGAACTAAAAAGCAATTTAAGGCAAAGAGGTACC
TGCCCGGGCGGCCGCTCTAGAAGTAG

Sequence 454

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCTGACTTTGTGACTTAGGCGGGCTG
TGTTGCCTATGTAGAGAACACGCTTCAACCCCACTCCCGTACCTGCCCGGGCGGCCGCGC
CGGGCAGGTACAAGCTATTATATATTTTATAAATAGAACTTTAAAGTATAGTAATCA
CAGTGGCAAAATATTTCTGTCTCTGACATTATTTTGTGAGATCCAACCTGTAATTGAG
ATCAGAGAAAACAGTATGGGAAAACAAATCCATGAGAACAGGATAAAAAATATCATGAACA
GCAAAATATGTCTGAGTATTTAAACTGTATAGAAAAAATAAATTAGATGAACAATTGTG
TAAATATAAATTAAGAAAGATGACATTCTTAATAAATAAAGTTTACTATTTACATTTTA
TATATTGCCAAAAGATTTAACTTAGATNCATAAAACCACATAAACAGAA

Sequence 455

ACACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCTTTTT
TTTTTTTTTTTTTTTTTTGGGCGAATACAGATAAAATTTATTAGTTAAATACTGATTTTC
CAGCCATTTACCTTAAGACAATGTTAACAGGTTTGNNGGTTAGGGAGGGTATACGAGGG
GGCCTTTTGGAGAAAACAATGTAAATGATGATTAAACAGAATCTTGGTTCAAAGGTATT
CTNTGCTATAGCCAGTAGGATTTTGGAGTGAGGGGTCTGGGCCGTGTGGGGAGGCGTAAT
AATGCCACAGTCAGCTNCAGCTTTTGNAGAAAGAGGAAAGGAGTCTCTTGAGCTCAGC
ATCAAGGGGCGAGAACAGCAATGTGCCANAGGAAGAACCGCGGGCAGATCCCGGAGCACTTA
AAAGTCNGAGGCTTNTTCAGGCCCCCTGNCGGGTTTANCAAGTCGTTTTNTTTCAN
GAATTCTGGTGGGGTGGGGT

Sequence 456

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTGATGAAGGAAGTACAGGAAA
TTAACAGCCTCGTGACAGGCAAGGACAAAGACAAGAAAAGGCCCATTTGGGCCTCATATCT
CTCTGGATTGGAACCCGACAGGAAGCAGAAGGGGCTGTTTAATCCTGGCTCCAGAGCAACC
GTGAAGGCTGGCTTCTCCCTTGAAGAAGAACAAGGTGAAGGAAAGAAATCACTGTGTTT
TCAGCTCAGCGGCCCTGTGACATTCTTCGTGTTGTCAATTTGTTGAGTGACCAATCAGAT
GGGTGGAGTGTGTTACAGAAATTGGCAGCAAGTATCCAATGGGTGAAAAAGAAGCTAACT
GGGGG

Sequence 457

GAGGTNCTGCATGTTACATATTCTTCTTTAAATTTTGTAAATAACATTGACAGTGTGTTG
GTGGGCACAGGGAAACAGGATAACGTAGAGTCATTACAGAAGAAAAAACTTATTGCTAA
CATTGCAGTATTCCTTTATCAGAATTAGGTGAGTATTGATTGTAAAGCTCTATCAACT
CTTGCTCTTATTTGATGACTTTGAGACTTTTTTACTCTTGCTATAAAAAGAAGGCTACTT
TCTTTCCCTAATATATTTCTACCAATGCGAATAATTGAGGAAACAATGAGAGAAAAGTAA
TTCACACTTAATGTGTTGTTACTTAAGAGATTTGACGGATAAAATAAATCAAATTAAT
CATTGAAAAGGCAGGCTTAGACCCCNNTAAAAACACCGTTAGTTGCCTACCATAATTTGA
GCACTTTTTTCATGGAAAAAAAAC

Sequence 458

CTCNCGCGGTGGCGGGCCGAGGTNCATTTCCATGGGCCCTGTTCCCATTGATGTATACT

Table 1

GCTTCCTTACTAACAGTGAGGGATGACTTTTCATCAGTCTTTTATCACCTGAACAGTCTTC
CGGCCATAATGATAGTAACTATAAGCTGATGCAGCTGTGNNGAAAGCTGTAAACACCTT
TTATGGAAGAAAAGANATAAAATGTANTTGTCAAGTCTAAAAATAGTAGCAACGGGAAT
CATAATGAATACATGCAATGAATTTAAATGNAAAAATGAATTTAAAAAGTAAAAAGGGC
TCTGTGGTGTAATTTTCTTAACACAA

Sequence 459

CGCGGTGGCGGCCGAGGTACAAGCTCCTAAAAGAAGATTACTGCTGCCAACTTAAGTCAT
CTCCATTAACGAAATTGCATTCTTGTGGCAGAGTTAAAACAACAAGAGAAATTCAGTGTT
TGCTGGTTCTGAATGTCATTTTCTCCCTGGTGTGGTTTTACATTTTCAGCTTCTTTCC
CTTTCTTCTCTCCACCCTCAAAATCTGCCTTAGCATTTGTGTGCTTAATTAATCCA
CTCTGTGCTTTATTGTTGGAGAATGTGGACAATACAAAGATTTGGGGTGGGGTCATACAG
TGTATACAAAACACACACACTNTGTGTTTGGACAAATTCGCCTAGCGTGAGAATCATCAG
TAGTGAGTTTAAAAGTTTGAATCAGACCCAACATTTGGGGTGNTTAAATATCTCCC
GCCTTGAA

Sequence 460

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTGACGAAGAATG
AAAAGGTTGTATTAAAGAACTATCAGGACATGGTTGTGGAGGGTTGTGGGTGTCGCTAGT
ACAGCAAAAAAAAAAACGTCAGCCAAACACAAACAGCGGAAACGCCTTAAGTCCAGCT
GTAAGAGACACCCTTTGTACAAGCTTTTTTTTTTTTTTTTTTTTTTTTNGAAGTTTTT
AGTTTATTACCTGCCCC

Sequence 461

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATGTTATGTCGGGAACA
CGTGCTGCTAACTCACTGGTGAGTTCAATGGCAACGCTTCATTGCGGAGGCTGTTCTGCT
TTACGCATCTGAGAACTACATAGGAGAGCAAGTGTCTGCACCTCCTAACTGCAGAAGCTA
CCGTCTTCTCAAAGACGAAGGTCTTTGCAAAGTTCAGTGCTCGGTGTTCTCGGCACAACA
ATGCNNTGTAGTTCANAAGGTATTTTGGCAACTCTTAATCTGAACAAGAATGGGGGGGGC
GCTTTTGAAAAATAAGGCTTTAAGAAGGCTTGTCAATTTAGGGCTAAATTTAATAGAAT
GTGAGTCTGAACCTTACATTTAGAACAAAACAAACCTTAAATTTNCTGATTGGTTCAAA
AAATGGTTTTATGGAAAAATTAATCTGTAACAAAAGTTGGCATTGAGTGCGAAGGCTC
CCCCGTTGNTTTTTTTTTTGNTTTTT

Sequence 462

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTTTTTTTTTTT
TTTTTTTTTTTTTCTGTTGCTACTAAGATGTTTCAATTCGCANCGTGTCTCGCTAATT
TGACTATGGATTATCAAAATGCAACTGAGGTTTGCTCAGTTAGGTTACCCCATTCGGAA
ATCNCCTATCATAGTTTATTTCCAACCTCCNCGAAGCTTATCGCAGGTAATCGNGTCTT
NATCGACTTTNAACTGCCCGGGCGGCGCCGAGGTCCAAAAACCAACNTGACACA
CAGGAAAAATAAAAGTGCAATTTTAATATAGGGAATGNGATNCATGTATAATTCCTCAT
AACAAAATGGTCAAAACCTTTAAAGATCCNCAATAGATTTCTGAAAATCTTAGCAATGC
TGTATTTNTTTTGNNGACTAAATGGTGAATTTATATTCAAATTTGGTCAAATTTATTTTCA
AACTTTTCAGAGCACANATCATTGGTAATTT

Sequence 463

CCGGGCAGGTACACGTGTTTCAGTGTGTTGCACATCACAGCCCAGGTTGAACCTCAGCCAGC
AGGATCTTGGCAGCTTCTTCTGCTTTGCAGGAAGGACAGAGGTTGAGGTAGGAACTTCA
TAAGCAATTTGGAGAGAGGCTCCTCCCATATCCAGTATCCCTACTGTCTTCTCCGTCCT
GCTGCCAATTCCTGGGTAGCCTCAGCATCTGATTCATCCTCGTGGTGAATCTTCCCAA
ACAAAGTTGATTCCAATCCATGCATAAACCCCTTCTGCTTCCAGAGATCACTTCTGCT
TGAGACTGTGAAAAGAGGAAGTCAAA

Sequence 464

AGGTACATTTCTTGTAGGAGGGTTTTCTATCTACCTTTCTACTGAAGTAGTTTCTGG
AACTTTCTGTTGGATCAGAGTTACGTAATGCAGTCTGAGCCTTCAGACTGCTAGTTAGA
ATTGTTTTAGGTGTTTCAAGAAAGGGCAAAATAGGCTGATGTGGCCTGTCAGAGTGATGTG
TCTCAAAAAAGTTCACTTGACATCTGTGGGCCGCTTTTGTCTCAGACCCCTTAGTGGAC
AGACTCCACAAACCTCTGATGAGACGATTGATGTGGCCAGGGTCCAGTTAGCATCAGTA
GAAGGATGTCACTAGGAAAGGCCAGGTATCTGGTAAGT

Sequence 465

CCGCGGTGGCGGCCGAGGTACCTCAAACCTCAGAGTTTCTTCCCTTCTTTGATTTTCTGGA

Table 1

GGACCTGCAGCTGGCCTTCCTGAGACAGGCTCCATTCTGTTCATTTGCCTTCCCGGCA
GCCTTCCCTTTAGTGGGTATAGGTTTTGACGTTCTGAGTTACTTTGTATCAAAGAGCTAA
TAAAAATGGTCCTTCAAAAACATAAAGAAAAACAGCTTGAAAAATGTACCTGCCCGGC
GGCCGCCCGGGCAGGTACCAAAAACCAACATGACACACAGGAAAAAATAAAGTGCAATT
TTAATATAGTGAATGTGATACATGTATAATTCCTCATAACAAAATGGGCAAAACCTT

Sequence 466

CCGGGCAGGTACCTCAGCTATCAACATTTCTGAGCTACCATTCAATGTTCCCTCTGTGTCA
TGGAGTGAAATTTCTGTTTTGTGGGTATTAGGAGTGTGGGAATGTGATAACCTAAACAAC
CTTTGCTCTGAAATTCATTTTTCCCTCTTTCCCTGAGTTGTATTGACCTACAGAGTTAA
TTTCTTTGTATTTTTTAAGAAAATATTAATAATCAACGGTCTCAAAAACCTCGGCCGC
CCGGGCAGGTACTCCAAGATGAGCTTGACGCGGCTGTGCAGCATCTTGATGGCGCTGTGC
TGTGCTATCAGGTGT

Sequence 467

CCGGGCAGGTACTTGGCATATATTAGGCCTTCAAATGATGATGGATGGATAGACAGATAA
AAGGCCCAATGAATGATTGTAATGTGTCTTCTCCTATGTATCCATGATGATATTGCCTA
GTTTTAATACAAGCTTAAGAATCAATAAATGATAGATCTGAAATCTGTAGATGCCAGT
CTGGCTCAGTATTAATACTGACAGTAGTTTTTTGTTTTTAAGAAAGCAAGTATATTAA
AATATCTCTGTTAGAAAAGATTACAATTTGAAAGGATCATTCTACAATCTTAGAACTAAA
AAGCAATTTAAGGCAAAGAGG

Sequence 468

CCGGGCAGGTACTAGGTTAGAACATTGCTTAATCCTTTTAAAAANATGCATTNACTGTA
AACACAGAATACTGAAATTTGGNGGATTTTTTAACTATNTCTGACATAATTTTATTCATCA
ATTACATTACACATTCATTTANCCAGATTTCAAATAGGGGGGGAAGAAAGAACTGTAT
TTCAGAGTAAATCTCCTAAAGGAAATANAACACAGAGTTGTAAATNCACATGTGCA
AAAACATTAGTCGTGAAATCCCTAGCAACAAGTCACTGGATTTTCTCTGTCAGCACGCG
TGTCAGCTGCCAAA

Sequence 469

AGGTACAAATGTGGTGTGTCTTCCAACCTTTCATTGAAATGCCATATCTATACCATATTT
TATTCGAGTCACTGATGATGTAATGATATATTTTTTCATTATTATAGTAGAATATTTTTA
TGGCAAGATATTTGTGGTCTTGATCATACTTATTAATAATGCCAAACACCAATATGA
ATTTTATGATGTACCAAGAAAGTCGGGATCGTCGGTAAATACGGGACCCGCTATGGGGCC
TCCCTCCGGAAAATGGTGAAGAAAATTGAAATCAGCCAGCACGCCAAGTACCTGCCCG

Sequence 470

AGGTTTGAGCTCCATAGAGACAGCGCCGGGGCAAGTGAGAGCCGGACGGGCACTGGGCGA
CTCTGTGCCTCGCTGAGGAAAAATACTAAACATGGGCAAAGGAGATCCTAAGAAGCCGA
GAGGCAAAATGTCATCATATGCATTTTTGTGCAAACCTGTCGGGAGGAGCATAAGAAGA
AGCACCCAGATGCTTCAGTCAACTTCTCAGAGTTTTCTAAGAAGTGCTCAGAGAGGTGGA
AGACCATGTCTGCTAAAGAGAAAGGAAAAATTGAAGATATGGCAAAAGCGGACAAGGCCC
GTTATGAAAGAGAAATGAAAACCTATATCC

Sequence 471

ACCGCNGTGGCGGCCGANGTACAGGCTGTGATNCGTGTGGCGATCGATCTTCTTAGATTC
ACGGTATCTTCTGAGCAGCCGGCGCAAAATCCTCATTCTCCTNATCCATGTGACCTTNTC
TGGCATTCCGGGCATTGGCTGTNCGAATCAAANCACTTACATGAGGGGGCAAAGTCAGAGA
CAGNTGAGGAGCTGAAGAAGGTGGCTCANGAGCTGGAGGAGAAGCTANNCACTTCTCAACA
ATAANTATAAGATTCTGCNCGCGGNCCAAGAACTGTGACCACAGGGCANGGCATCCACCA
CCANAGATATGCCTGGCNGGGGCCAGGACAAAATGCAAACCTTNTTTTTTCTGAGACAG
AGTCTTGCTCTGTCGCCA

Sequence 472

AGGTACAAGCTTACCTTTTAGGGTAGAAAAAGAAAGATCATTTGAAAAATGTATCTAAAA
TAATCCAGAGAACATAATGTTTGTCTTGGTCTGATAATGATAAGAAGTCAAGGATTGGCA
GAGAAAATACTAAACGCCAAGAGTTGAGCCTGTGGGTCTCTCCATAAGAGTTTAAAACT
CTTGCCAGTTACCACTTTATCCAATTTGCTATCATTTTCGTATTATCAGCTATCGCCCTG
TAAATATTCAAACTAGCTATTTNTAAAGTAAACATTTTATCTGTTACTTTTAAACCAGA
TAGGTGTCTTTGTCATCCTTCTACTATAAATTGTTCTTTGCCAACCTGTACCTGCCCG

Sequence 473

CCGGNCAGGGCTGGTTTGGGGCACAAAGGAAGCCTTAGGGTATGGGGAAAGGCTGTTATTA

Table 1

TAAATCCCAGATACTCTGAATTTAGAAAACAAATAATTCTGATTGNGTCGTGCCCAA
GTACCTNGGCCGTCTAGAACTAGTGGATCCCC

Sequence 479

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGAAACCCACCTCACCC
CGGCTCACATCTAAAGGGGCGGGGCGGTGGTCTGGTTCTGACTTTGTGTTTTGTGCCCT
CCTGGGGACCAGAATCTCCTTCGGAATGAATGTTTCATGGAAGAGGCTNCTCTGAGGGCA
AGAAACCTGTTTTAGTGTGCTGCATTCGACATGGAAAAGTCTTTAACCTGTGCTTGCAATC
CTCCTTTNCTTCTNCTCTACAATCCATCTCTTTAAGTTGACAGTGACTATGTCAAGTCT
AATCTCTTGTGGCCAGGGTTCCTAAATTAATTCACCTAACCATGATGCAAA

Sequence 480

AGGTACAGGTTGAACATTCCGTTCCAACAATCCAAAACCCCAAATGCTCCAAAATCTTAA
ACTTTGAGTTCCAGCATTCCGTCAGAAGTGGAAAATTTACACCTGACCTCATTTGACAG
GTGGCAGTTACAGTGCAATCAAACTTTGTTCCATGCCCAAGATTATTAATAATTTGGA
TAAATACCTTCAAGCTATGTTGTATAAGGTGTATATAAAACAAATGAATTTTGTGTTT
AGACTTGGGTCTACTCCCAAGATACCTCATTATATATATACAAAATCCCAAATCCAAA
AACATTTGAAACACTTCTGGTCCCACACATTTTGATAAGGGATATTTGACCTATATCTA
ATTATATAATAAGAAAAATGATTTTCTTTTTTTTTTTTTGAGATGGAGTTTCACTCT
TGTTGTGCGCCAGGCTGCAATGGCACAATCTTGGCTTACTACAACCTCCGCTCCCTAGT
TCAAGGGATTCTCCTGCCTCAGCCTCCAGGTAGCTGGGATTACAGGCATGTGCCACCAT
GCCTGGCTAAT

Sequence 481

CCGGGCAGGTGGCAGCTCTGGCCCTGCTCTTTGCCATCCACAGCTACAAGCCAGCCCCCT
TCTTCGCTCGGATGAGATTGATGCTGCCTTGGATAACACCAACATTGGCAAGGTGGCAA
ATTACATCAAGGAGCAGTCGACTTGCAACTTCCAGGCCATCGTCATCTCTCAAGGAGG
AGTTCTACACCAAGGCCGAGAGCCTCATTGGAGTCTATCCTGAGCAAGGGGACTGTGTGA
TCAGCAAAGTCTGACCTTCGACCTCACCAATTTCTGTTAATCGAAATTTAACCCGAA
AGGCTGGATACCTTAATGCTAGGAATAAACAGGCTTGGTGTCTACCTGGGACAGAC
AGTTTTACTTCACGCAGGTGGAAATTTAATGAGTCAGGCCCGTGGGATGTAGCAGGAG
GCCTGGCCATGGACATAGACAATGTTTCAGTGATGGCTGTGGACTGTGAAGACAGACGAT
ATTGTTTTGAGATCACCTCTTCGATGGAAAAAATCTTCAATTTTGCAAGCAGAGAGTA
AAAAAGATCATGAAGAGTGGATCTGTACCT

Sequence 482

CCGGGCAGGTACAGAAGAGAGATGACGCCTCCGGCTGGGGAGGGAGGGGCTGGCGCCTCT
GAGAGAGCCCATTTATTATCAGGGTCACGGCCAAGACCGTGGGCTTGGTTTCTAGGTAGG
TGGACTTTGAGGGGCAAAGACAACCCACTTTTCTGCCCCCTACCCCGGCTCTTAGAGA
CCATTTAAATCCATATCCAAAGTATATCCAGAGCCACCTGGGACCATCAGGCCTCTGGCT
AGTCTTTCTGGGCCAAACCTGTCTCCACCCTGAGGACCCTCAGGGAACCAGGAAGGTGA
GGGGCTGGCTCCGCCCCACCTGTAGCACAAGAGCTGGCCAGGAGGAGGCTGAAGATGTG
TTTCTAGTTCTGTCATGCTGCTTTGTTGTGTGACCTCGGACATGTACCTCCAGCCTTCT
TCACCCACCTCACCTATCAACTAGGGCTAGTAATTGCCTGTGGTGGGTGGGCTGGGGGGC
TCTGATGCCAAAATGCAGGTAGAAGACACACTGTGAGAGGCAAACGTCTTCACTCATCCT
GCAGGGAAAGGCCAAGTGAGCATCTGGGACCCATTGAGCTGAATGACCCCCAC

Sequence 483

CCGGGCAGGTACGCAAGCCTCTTCTCTCCCTTGATGTGGTAGCTACAGGCAGTTACATTC
CTTTGCTGCTTGTGAGAAGCTTACATTTTGGCATTTTCTTCCAAAATTAACACGTTGAC
CAAAGTAAACATTACAAGAATATGAACCTGTTATTGGGGGAAAGGGGAAGTGAAGCAATC
TGTAAGAAATATTTAACTGAAATTACAAACATAAGGACAAGCCTTTAAAGCAAATTTATAC
AGGCATTTTTGTCTCTCTCTGGTCCCTGCAGTTAATTAACAGGGCCACAGATAATCTGA
CATCTTTAGATAAAACAACTACACACCTATATTACTTAAGTTAAAGCCAGTAAGTTCAA
AAAAGCAATTACAACCATTTGACATGTTGTATTTTTCATCTCTAACTCCTGATTTCTTA
AATTACATTCAGTCATACAAACATGGCTGAACAACAGCAAATGGGATCTGACTCTGGGAT
GTTTACTTCTTGGGATTAAATTTCCCAAACACTTTGGTGTCTCTTCTTGTGAATCTATA
CAACATTTCCAATAAATGTTTAATAATGATTTTTTAAAGATATTGCCAAAATGGCTCA
GATTTAAGATGAAATAAAAC

Sequence 484

CCGGGCAGGTGGCCTGTTCACTTTCTTACTCACTGTCTATTCACTTGTCTCTGTTCACT

Table 1

CGTCTGGAAGATCTCAGCCAGCACCATGACTGACAATGAGCTGTCTGCCTTGGTAGTGGA
TAATGGGTACAGGGATGTGCAAGGCAGGCTTTGGTGGTGACGATGCCCCCGGGCTGTGTT
CCCCCTCATATGAGGGGCTCCTCGACACCAAGGGCGTTATGGTAGGCATGGGCCAGAAGGA
CTGCTACGTGGGAGATGAGGCTCAGAGCAAGAGGCGTCCTGACCCTGAAGTATCCTAT
CGAGCATGGAGTGGTCAACCACTGGGACGATATGGAAAAGATCTGGTACCT

Sequence 485

NCGAGGTGGACAANAACACGNATGGCTAGGANAACTATCAATGCTGGCAGCCAGNTTG
AATANAATGTGGAAGGAGTGACTTNC AAGGAAANGGCTACCCAAC TNGCCTNCATGCGCC
TGCTGGCCAACTATGCCTCTCANAACATCACCTACCAC TTGCAAGAACAGCATGTCATAC
ATGGATGAGGAGACTGGCAACCTGAAAAAGGCTGTCATTCTACAGGGCTCTAATGATGTT
GAACTGTGTTTGCTGAGGGGCAACAGCAGGTTNCACCTTACACTGTTCTTTGTAAGATGG
CCTGCTCTAAAAAAGACAAAAATGAATNGGGGAAAAGACAAC TCAATTTGAATACAAAACA
AAAATAAGCCCATCACCGNCTGCCCTTNC TTGANATTGGCACCC TTTTGGACATCGGGG
GGTGCTCTGACNAAGGAAATCTTTTTCGNGGACATNNGGCCANTNCC TNGTTNCAAAAANA
AANTGAACCTCAAATCTAAATTAATAAGGAAAAAGAAAAATTTTGNAAAAAACTTT
TCCTCTTTTNGCCNAGNGNCCTTNGTTTCTCCTCTTTT

Sequence 486

AGGTNNTGACACACAANTACANACATAGTCCCAGTCTAGGGTGNTGATATTNCTTTAAAAA
AAAAACAANGGGCTCACAAACAATAAGACATCACAATAAAACATCNAGAACCACANTT
GCCAANAAATGCCAAGACCAATATGCTACTGAAACAAGTGGTAGAAATGTCACANACAAN
NTATTCANNATGTATTGNAATAATTACTTGNAAGTTAANGANNCGAAAGGTAACCAAAA
CNGGGANAAGAANTAACCTTGTAAGTGGGCTCTGGGNTNNAAAGAGGATCTTTTNA
CAANNNTAATTTTNTAAACCTTACCCCTTGTTTATAAAAAAANGTANCCAAANCTAC
AATGGTNNACCCCGGANGGGGA

Sequence 487

[illegible]

Sequence 488

GANTTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAANGCAAGAAAGCTGGGG
 GGCTCCATGTTCACTGCCAACCCATGGATCTGTATATCAGGAGAATTGGGTGAGACACAG
 ATCATGCAGATTTCCAGGAATGTGCTAGAGATGACCTTNGAGTGCCAGAACTTGGGGAAG
 CTTACTACTGTCCAGATTGGCCATGATAACTCTGGGCTGTATGCCAAATGGCTGGTGGAG
 TATGTGATGGTCAGGAATGAGATCAGGCACATCCTACAAGTTCCTGTGTGGCCGGTGG
 TTAGGGAAGGGCATGGATGATGGAAGCCTGGA

Sequence 489

CCGGGCAGGTACAAGGTAGTGGAATTATNTCTTATATTGCTTTTTCCAAAAAGTAAAAAC
CAAAAAATGTGGGCNCGGTTGTGGTGGCTCATGCGCTGTAATCCCAAGCACTTTGGGAGGCT
GANGCAGCGGAATCAACANNGCCAGGAAGTTCAAAGACCAGGCTGCCCAACACAGTGAAC
CCCGCNCTNTACTAAAAATACAAATAGCCAGATGTGGTGGCGCACCTGTAATCCCA
GCTACTCAGGGAAGCCTGAGGCAGGAAAAATCGCTTGAACCTGGGNAGGTGGGAAGTTGG
CAAGTGAAGCCCGAGAATCGCACCACTTGCACTTCCAAGCCTNGGGTTGGACAAAGAAG
CCGAAAACTTCANCTTNAAAAAAAAAAAAAAAAAAAAAAGTGGAAAACTTAAAA
AAATCCCCCTAATAGATAATTATTTCCCAAGGAAAAATTATTTTTAAATT

Sequence 490

CCGGGCAGGTACCAACATTTATTAATCCTCACAACACCCCTGTGAGGTAGGTCAGTATGG
NCTTTAGAGTCGNGAACTGAGGCAGAGGTCAAGCAAACCTGCCCTGGGCCACAGAGCAGC
ACGATGAAGGGCCTANACCTGGATCCAGAAGCTAGGGGCTCTTCGGNCCAGCATTTCATCC
ACTGGTGGACATNACATGGGGCTTATTTTTACCAAGCCGAAGGTTACCGTGAAGGGACAA

Table 1

AACCGCACTCANCCAGCAACCGGGAAACTCAAACAGTTCAAACAGCACCTGGGGGGAACA
TGTTCAAGTGTAAAGGAGACGAAACCGCTGACCAGCTCATGAATGGAGGGCAAGGACAA
CCATGGCGGACTTGAGGGAAAAAGTGTGGGAATCAATCACCAGCTGGGGGGATTAGGAA
CCCAAAGAACTCGGGGGCGGCTTCAGGGAGGGGGTTTCAAGGAAAAATGGTTAAACA
AAACCTNAGGGAACCCCATCCCAAGGGGGGGGAGCAGGGCCCAAAATGGCCTTACCG
GNTCTTNCAAAATGGGTAGAAAAAAATTTTGAAAAAGGAATAGNGGGNAAAA

Sequence 491

TCAGATCCAAAGCCAGCACGGCACCGGGTTTCTTGCCTAAGGTCATGGTGACCACTCCT
TGGCTATTGCCAATGTTCACTCAAGGCCCAAGCACTCTTTATTAGCTGGTGGCAAATCC
AGCCAGGCTTGTGTTTTCCCTTCAGTATGACGAGCTCCCCCTAAGCCCAAGACAAGTCC
TAAATGTCACTNTGGGAGCCAGGACCTGGAATCAGGATCCTTAGGAATTTACTTGGTGCT
GTATTTCTACTATGGCTGAGCTGGCAATCAAAGTGGCAAAGATTAAAGCCCTTTATTTCT
TTGNTCTCCTTTCCTC

Sequence 492

[illegible]

Sequence 493

ATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTGTGGGGTGCAG
TGAATGAAACTAAAGAGTTGTTGCACCTGAAAAAGACACCAAGTGATTGGGTATGGGGTAG
TCGATTGGAGACTTGTATTTTTTTTTTTTTTTCACATGGGAAAGCTTGATAGNCCAAGTAG
ATGGAATTNGCAATCCTTTGCAGTTTGTTCTCATTACAGATAATCAACATTTNTTTTGT
TAATTCAATACATGATCAAGTTAATTGGTAAATTTTATTGAAATTTAAACCTGCATTT
TTATATATGTGTATGTGTACCT

Sequence 494

ATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTGAAATGATATTNNGA
CCACATCCATGCAGGGTGCTNACACTGNGACATNNGGAACCTGATATCAGGTCAGCTCTCT
GCCTGNCTCANTATGCATCAGCATATCTCATCAATATGAATCATATTGATANCNGAAGGN
GNTGAAACAAATGAAGCNGCGNTTATATATTAACCTGTGTGTTNAGTCGGTATAGAACAT
GGGNTCAATTCCTACTAATATTATGTGTATTCATACAGTCGCACAAAACCTT

Sequence 495

GGTACTTTACCTTCAACGGGACANGAACTGCNCCAGAAGTCAACTTCACATTTGAAGG
AGAAACGGGAAAGNTCCANGATTGAAGAAGACAACACATTTTATCAAAAGACTTAAGTCC
ATGAAAGGAACNCNTAGAAGACACANAATATCCAGCAATTTGGAAATGTATCTCCAG
AAATGACGCTCGNNCTACATTTAGCCTGGGNCCTGCCTGNGGCTTATATAANATTGGCAAG
AAATTCCTACTTGAAGACACATGGTATAAAAAATGGGNAAAAAATTNAANACTGTCAAG
CCAAGGTGGGCAAAAGCAAAATGANNGACCTTTATTGGAATTTAAGANTACACCATTCTAC
TTTCATTAAAT

Sequence 496

AGGTAAGTGGTCTACCAACAGCTCTGATTGGTGAGTGCAATTTCTACGCCACTGCTCAG
AGCTGCATNATCCGACTCCCCAAGACTGTGTTAATGCTGCCACTGACCACAGACTTGGTC
TTCTCCACAGTCCCGACTGACCTGCCCTTTGGTCTTGTCATCACCCCTGTGATCGCTG
GCCACAGAATCCTTGGCCCCAGTCACAGTANGTCGCTACAGCATCTTTTGGCCCCAGTC
ACAGCGCCTTTGGCATTTGGGCAACAAATCTTGAGTTTGATGGGGCTGATTCAGAAATA
AGGCAAGTTCCTCTCCTCAATCCCTGGTCTAAGCCCCCTTACAGGGCATAAGGGTATTGG
GGCCAACTGGCAAATTTTGGCGGCTTCTAGCTTTCTGGGAATGAATGGGGCCAGAAGC
ACTGGGTCAATGGGCCACCGGGAGGGTGAATGGTCTTTCAACAACCGCTTCTCCTGCCC
ATCTTCACAAACAGGAATCTCAAGGGTAGGGGAATACCTGGGGTCCCTTTGGTAACC
TTGCCCCCGGGGCGGGCCCGCTTCTAGAACTAAGNGGGGAATCCC

Sequence 497

GAGCTCCACCGCNGTGGCGGCCGAGGTACTTTTCTACCTTAAAAAAATCAGTGAGGATAT
TTATTTAATGAACATCAATTCCTTTTAAATTTTCTTAGAGAAATNGNCTCTGTGGCTCAG

Table 1

TTTACCACCCATAAAGCGGAGACAGTAATTTATGGTTATTCCTTTCTGACCCACAAAGT
ATGAAAAGTTCTTGTAACTGTAACTCAGTTCTGNAATCTGCATTATTGAGATGATTAA
TATAAAGTTGTATTTTCACTGAAATGANTGTTTTGCTGGTTATGCTTGGTGAATATTTTA
GCCGGGCTTATTTTTTGAAG

Sequence 498

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACAGTTAATCATTTT
GACTGTGTGAGTAATATAATCAGAATACTGTAACGGTAAGAGAAAAATACTTTTTTTTTT
TTTGAGACTGGGTCTCGCTCTGTGCGCCAAGCTGGAATGCAGTGGCGCAATCACACCTCA
CTGCAGCCTCAACCTCCTGGGCTCAAGGATCCTCTAGCCTCAGCCTCCTGAGTAGCTGGA
ACTACATGCATGCACCACCACACTCAAGCTNATTTTTTTTAAATTTATTTTAGTAGAGA
CAGGGTCTCACTATGTTGCCCTAGGCTAGTCTTGAACCTCCTGGGCTCAAGTGATCCTCTG
CCTNAGCCTNCCAAAGTGCTGCGATTACAAGCGTGAGCCACCGCCTGGCCCGAAAAATAC
CTTGGGTTTTAATCAATTCCCATTCANCAATAGTAAAAATGCTNTATGGTCTTCCGGC
CCNTTTAAGAACTAGGTGGGATTCCCCC

Sequence 499

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACCTGGGGGGGTTTGCT
TTCCTGCCTTTTCTCTGGTTGGTCAACATCTTCTGGTTCTCCGAGAGGCCCTTCCTTGTC
CCAGCCTACACAGAACAGAGCCAAATCAAAGGCTAGCTGGAGATGGCCAAAGCCCGGAAC
CACTGGATGCTGTCTTGCAAGTGTCTGCTGGAGAAGAGTCACATGGACAGGGAGCGTCTG
GATGAGGAAGCTGGGAAAACACCCCTCAGACACCCACAATAAGGACTGCTCCATCGCAGCC
ACTGGCAAAAGGCCATCTGCCCGCTTCCCCCACCAGCGGAGGAAGAAGAGGAGGGAGATG
GATGATGGGCTGGCTGAGGGAGGGCCGCGAGCGATCCAACACATATGTGATCAAGCTGTTT
GACCGGAGCGTGGACTTGGCCAGTTCAGCGAGAACACGCCACTGTACCTGCCCC

Sequence 500

GGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACANGAGCTCAGACCCGGGGAGAC
CCTCAACGTCAACTTCCTCCTGCGAATGGACCGCGCCACGNGGCCNNGATCCGCTACTA
CACCTACCTGATCATGAACAAGGGCAGGCTGTTGAAGGCNGGACGCCAGGTGCGAGAGCC
CGGCCAGGACCTGGTGGTGCTGNCCCTGTCCATCACCACCGACTTNATCCCTTCCTCCG
CCTGGTGGCGTACCTGCCCGGGCGGCCGAGGTACTTNTACCCTGCTGCATGAGTATAA
TGCTCCGGAATTATCAGAAAGCATAATGCAGAAATACGAATTANTGGAACCTAATCATGT
GCCANATAAGCTTACCTAACAACAGTTATATCCCTATTCCCTCACTGAATGTCTTGTA
TAAATAAGAATTNATCATTTATTTTCTGCAACTTTTTTTATGTCTCATTCTTAAACATT
AANAACCCCTAATATTTTAAACAAAATTTCTTGATTAGAGGCACAGTAAAAAAGAAGTC
NAAA

Sequence 501

AGGTACNGTGTGGCTTGGTCACTTCGTGGCTAAGGTAAGAACGTGCTTGTGGAAGACAAG
TCTGTGGNTTGGTGAGTCTGTGTGGCCAGCAGCCTCTGATCTGTGCAGGGTATTAACGTG
TCAGGGCTGAAGTGTTCTTGGGATTTCTTCTAAGAGGGCTGGCAAAGAACCANGTTGTTT
TTGTCTTGCGGGTCTGTCAAGGGTTGGAAGTCCAAGCCGTAGGACCCAAGTTTCCTTTT
TTAAGCTGATGTCTTTTGCCAAGAACACCCGTGGGGCCTGTTACTTTGTTTTTGAGTT
GGGAAGCCCGGGTTTGAATTTTANCGCCCTGTAAAAAATGGTATTTCAATTTCTTAAA
TTTTAATGGTNAAANGGNTTTTTTTTTTGGTAACCCCTTNGCCCCGGGGGCGGGCCCCG
TTCTTANAAACCTTAAGTGGGAATCCCCCCCCGGGGCTTGAAGGGAAAAATTCGATA
ATCAAAAGCCTTTAATTCGAAATAACCCCTTNCNAACCNNTTCAAAGGGGGGGG

Sequence 502

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACATGAACATACACACACAC
ACACACACACACACACACAGAGGCCAATTTCCAGTGAGGAACAGGCTCCACAGAAGAA
GCTGATAGGCAGGGGGGATCAAACGCTGCTCCCTGCTCACCAGTCTACTTCTCCAAATA
CAATATCTTGGGTACTTACAATAAAAAAGATACAATAACTCTACCAATTATAATAAT
GTAGCATTTTCAATTAAGACATTATCGTACCTGCCCC

Sequence 503

CTGTTCTACGGCAGTCAAGAGGCCAGGCTCTGTGGGCTCCAGCTCTGCATTTCTGGT
TCTGGGGNTGGGGCTGGGATGACTTCTGTTGGACTTGCTGCTGGGACTGGAAGTGAAC
TGTTCTCGGAGGGCCGAGGAGTCACCTCTGCAGCCAGGGGAGGATAAGGGGGTCTGCTC
CCTTACCCCTCCAGGGGGTCTCCACCCAGCTGCCGGCCGCTCTATCTTACCCCT
AGCCCGTTACCTTGATAATCATAGTAGTCTGGGTTGTCGATCTGGTCTATAGTGGGTG

Table 1

TACCTGCCCG

Sequence 504

AGGTNCATTGAGAATCCCACGAGCAATTCAGATAGACCAGTCACCAGGCCTCTAGCTAAA
AGAGCACTGAAATACACAGATGAAAAAGAGACGGAGGGTTCTAAGCCAACAAAACTCCT
ACCACTACACCACCTGAACTCAGCAGTCACCTCATCTTAGCCTGAAGGATATACCAAT
GTCTCCTTGATCCTGTTGTGAAAAATCAGAAGACTTTCTTTTNTCCAAAAAGAATAA
AGCCAAGCCCAGCAGNNGGGCTCTGCCCTAAACCGTAGGGGGGCACAANGCCAGCCGTNGAA
CTATTAAGGGAGGCCACNCCTTGCTTTTGNAAAACTGAAGAAAAGAGGGGGGACCCCTT
TTACAGAATTTTGN TGTTTTTTTGAAATTCTCCCTATTTTTCAAGCANAAAAAAGGGAT
TTNAGGACCGTTTCTAAAAAAAAGGNATTGAAACCAAAATACC

Sequence 505

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGNTTTGTCACTTAAA
GGTNCTTTCTGTAANCTGCTTCAGATNCTTTNACTATTCAATTTTTAATNCTTAATNTCT
GTAAAGAACGTTAATATTCCTCTTTATAATCAATCTTCCCAGTTNGCCTNAAAAATGTA
TTCCCTACTTTTGCTTCAGGAGATCAT

Sequence 506

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGAGAAGGCACTGAATA
AATTCACAAAGGCCGATTGGTTACCCATTCTTTTAGNGACAACAGACACGCAATTCTGA
CGAGGACTCCTGTTACTAAAAGACACAGCCTCTGATACAAGAGAGATATCCCTTTGACTA
AAGCATTACCAGGGTCCCCAGGGCCCCCTCCCACTGGGGCGGNAACACTACGGGTCTCCC
CACCATATATTCATGTCAAAGTATCTACACAAATACAGAGGAAATTAAGCAAGTAAATA
CGGTATGTAATTGTTATCATTTGTATTCTTTAAGGCATATTTATAAATATTTAAAGTA
AACAAATAGAGTGAGTGCCTTTCATTAGCTATGATCTTTCATACTGATATAT

Sequence 507

GGNGAATNGGAGCTNCACCGGGGNGGCGGCCGCCCGGGCAGGTACATAACATTTCAAATA
TAAGTGGAAGGATCATCAGTAGTGTATCAAAATGCATAGGNACAGANNCTTTTTAAGAA
AGGATAAAAAATTACACTCAGGACCCATAACTCTTCCTCATTATAAGCATATGTAGTGAT
TCATTATGCAGGTTTTATATGTAGATAAGGATTTTTTTTTNCTTTTCAAGAATTCCAT
TGTANGCCATGAAGATGAAAAATTGTATTATGGGNAATNGGTATAGCTTTTCTTCTATT
TGCTTTCAAGTGTAAAGGGATTTGCCCTAAAAGGCCTATTTTAAAAATTCCCCAACCTGAA
CAATAAATNGNNGTTTTTCCAAATAAANGGGAGGGAACGCTTNNCCTAACCTCCCCGGGA
AGACGGGGGGGGCCNCGNTTTCCTTGGANGCCAAACCTTTNGNTCCGNTTCTAAG
AAACATAAGTGGGGANTNCCCCCGGGGGCTTNGCAAAGGGAAATTNTCGNNNTATTCC
AAAGGCTTTTAAATCCGGAANANCCCGNGGCGGANCCCCNTNANGGGGGGGG

Sequence 508

ATNGGAGCTCCCCGCGGTGGCGGCCGCCCGCCTCCAGCCGTGTGCCGCTATGGGAGTCCCCG
GCGTTCTTCCGCTGGCTCAGCCGCAAGTACCCGCCATCATAGTCAACTGCGTGGAAGAG
AAGCCAAAAGAAATGCAATGGTGTAAGATTCCAGTTGATGCCAGTAAACCTAATCCAAAT
GATGTGGAGTTTGATAATCTGTATTGGATATGAATGGAATCATCCATCCCTGTACTCAT
CCTGAAGACAAACCAGCACCAAAAAATGAAGATGAAATGATGGTTGCAATTTTGTAGTAC
ATTGACAGACTTTTCAGTATTGTAAGACCAAGAAGACTTCTCTACATGGCAATAGATGGA
GTGGCACCCACGTGCTAAAATGAACCAGCAGCGTTCAAGGGAGGTTCAAGGGCATCAAAAG
AAGGAATGGAAGCCAGCAGTCGAGAAACAGCGAAGTCAGGGAAGAAATATTGGCAAAA
GGTGGCTTTTCTTCCT

Sequence 509

TATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTGCGTTGGAACCTT
TTGGGGATGTGACAGAGAGGAAGCAGCTCCGGGACAAGCTCCAGTGTAAGACTTCAAGT
GGTTCTTGGAGACTGTGTATCCAGAACTGCATGTGCCTGAGGACAGGCCTGGTTCTTCG
GGATGCTCCAGAACAAAGGACTAACAGACTACTGCTTTGACTATAACCTCCCGATGAAA
ACCAGATTGTGGGACACCAGGTCACTCTGTACCTCGGCCGCCCGGGCAGGTCTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTCCATGGNAAATTTNGCTTTNTT

Sequence 510

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTAACCTACC
TTTAAGACTGGGATAACTATTGGAAACAATAGCTAATACCGGATATAGTTATTTATCGCA
TGATGAGTAATAGAAAGGAGCTTCACAGCTTCACTTAAAAATGGGGGTGCCGGAACATTA
GTTAGTTGGTAGGGTAATGGCCTACCAAGACGATGATGTTAGCCGGGCCGAGAGGCTGT

Table 1

ACCT

Sequence 511

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNNCNGNTAGCCATNAATCATAN
ATATAGGANACAGCANCTATACANCTGACATNACCANTTAATNTTATATNATGAAAGCAN
NNCATNTGCNTGTGCATCAAGGCCAGTCCTATTCAACCNANCTNTCGAATGCTGATANCT
GGATAGNATGTCAATNTGAAGNTGNCACATAACTTNTCTAAAAAAGCANTCTTTGTTG
NNTGCTTCTTCCCTACNGATGACTTCTAAAAATATGACAGGGGTATAAAAAATTAGCT
ATACATGATCATATCAACACATGTAAGTGGTGAATGGCATTCTA

Sequence 512

CCGGGCGAGGTACAGGTTCAAATGAAATTCAGGTTGTTGCAGGAGACCATGTACATNTTGC
AGTATGGGCGCGGAGTTATGTTAATATGCAAGGTTAAGCAGAAAAAGCGGANCCGTAG
GGAAACCGAGTNTGAATANGGGCGACTTTAGTATATTGGCATATACCCCCC

Sequence 513

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGCTAGCACCATTCTGCTAGACTT
GAAAAATCTACTATGATATCAATTATTTTAGACTTCTTGTTCAGTTTCATTATTATTTT
AAATATGGAATTATTTTATATGAAAAATAGTTGTCCACAGGTTATTTTATCTTTAATA
GTTATATATGAGAGGAAGGGTCAACAAAACAATATAGATAACACTGGAGTCTCGCTGTAG
TATACTCATTGGTTCTGTTAAAAAGAGTTTGTATTATAGAATGTACCTGCCCC

Sequence 514

AGGTACTCCTTTNTTAAAAACACTGNAAAAGTAACACACATATGTGAGGACTTACTATN
TTAAATGGAATGGANTGAGCTCCATAGATTAGTTNTGAATATAAAGTATATAAAGTGCA
TCAGNGGTTTATATAGGCTTTAAAAACATGTTATCTTACAGTCCTTTAAAGCAGCCATAG
AGTTTGTATCATTTTTCAAGCCAATTTTCAGTCAGGGATTGGAATTGNTTGANATTGGAT
GATAAANNNGTCCATATCTTATNAANATGNGNTCNGTNCNGTTCNTTNGTTANATAG
ATTNAGGGGGGAATTCATTTTTTTTNCCTCCATGTTAAATNTCANAAAAACNNTAAACA
GTTGGCCNTTTNTANTNGGNTTCCCTTGCNCCCCAAGGNTTNGNNNCNCCCCNNGGGGGG
NAAAAATTTTAAANTTTTTTTTNCNNAAAAANGAGNGGAGGNNNCCCCCCCCCCCCC
CCCTTTTTTT

Sequence 515

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCTCANGCAAAATTCACGNGGTTG
ATGCCTTACATGAAGTACCAGTGAANAAAGGNGAAGGTGCCGAGCTATAAACCTCCAGAA
TATTATTA

Sequence 516

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCCAGGTACCAGTGGAGGAAG
GCCTTCCGGCGGAACATGGCAGTGAAGTCTCCGAGATGCGCTTGAAGAGCTCCTGGATG
GCTGTGCTATTGCCAATGAAGGTGACTGCCATCTTGAGGCCACGAGGNGGGATGTCACAG
ACTCGGTCCCTTGTGCTGCTGGAAGGCCCGCGCGGGAGCGGTGACCTCGGCCGAGGTAC
CCACCACCACTGTATGATGCTCATGAGCTCTGGCNTGCCATGAAGGGAGTAGGCACTGAT
GAGAATTGCCTCATTGAAATACTAAGCTTCAAGAACAAATGGAGA

Sequence 517

GGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGCCAGGTACAGCACTGGGCTTTATA
AAGACTGCACTCAGAACCACACTGCACAGTCCAGTTTAAAAAGCTGCTACATGACAG
ACAGGTAATCCCACTGAGTGAGTTTTGAGAAACAAATCAAACGAAGTAAACAAGAAACAT
AAAAACCAATAGCAAATGAATAAAGCCTGTTCTTGTAACTTAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

Sequence 518

CCGGGCAAGGTACCATCTGAATACCTCTTTGAAAGAAGGAAGACTTTACGTAGTGTAGAT
TTGTTTTGTGTTGTTGAAAAATATTATCTTTGTAATTATTTTAAATATGTAAGGAATGCT
TGGAATATCTGCTATATGTCAACTTTATGCAGCTTCCTTTTGAGGGACAAATTTAAACA
AACAAACCCCCATCACAACTTAAAGGATTGCAAGGGCCAGATCTGTTAAGTGGTTTCAT
AGGAGACACATCCAGCAATTGTGTGGTCAGTGGCTCTTTTACCCAATAAGATACATCACA
GTCACATGCTTGATGGTTTATGTTGACCTAAGATTTATTTGTTAAATCTCTCTGTT
GTGGTTCGGTCTTGGTCTGGTTTG

Sequence 519

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTGTGAAATTAAGTGGCATCCTGG
TGGGCCCAAGGGTTTTAGGACTGGGGGCCAATGACTACCCCTCCTTCTCTCTCTG

Table 1

TCCCTATCTCTAGCTCTTATCACAGATTTTGAACAATTGTCTGTGAGGTTAATGATGGTT
 TCAGAGGGAAGCCCTTTTCTCCCTGAGACTGTGTGGGGTTCAGTCAGCCTGCTGAAATT
 GCTTCCACTTATTACCCATCCTTCTCTTAAAAAAAAAAAAAGCCACCAAGTTAGTATT
 CTCTGTAGCTCTCAGACAGCTACAAGTGTCTGTCATATTTACCAAGTACCTGCCCGG
 GCGGCCGCTCTAGAAGTAG

Sequence 520

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGGTTTTAGTG
 TGAATTTACATAGAATAAATTTACTTCACTTTCATGTCATCGACATGAATGACACAAAAG
 CTACTTCATAATACTACTTTACAATAGTTTTCAACATTTCCATATGGTGCGACCCCTTTG
 CTCTCATCAATTTTGGGTGTCATGAGAACAATAGGTATCCCGTTGGACATGATGTATTGC
 GAAGAGCATATAAAGCAGAGGGGAAATGAAAAAGCAAGAGAACTCATTTCATGCTTTT
 TCTAAAAGGTAACAAATATAATTTTAATCAACTTCCTTGGAAAAATTTTTTAAACAGGT
 ATCAATAGAAAAATTACAAAACATCATATGAAGCTATAAATAATTTTGA AAAACACCTC
 GGCCGCTCTAGAAGTAG

Sequence 521

AGGTTTAACCCCCAGGGNTAAACCCACCCAAAGGNNAAGANGGGGGNACACAAAAGCA
 CCGAACAGCAGAGCAGNNNAANNNCNNCNGNNNACNAAACNCGGGGCNAGACACNAACNNGA
 AAGAAACCACCCCCCGGAGNNAAAGGNANAGGANCANAAACANGGGCACCGAGCCAAAG
 AAAACGGGCAAGGACNAAGCCCCCGGANCCACCCCGNGGAACACCCNCNAGAGNGGA
 GAGAAAAGAAGGAAAGGCCNGAAGAGAAAGCAAANCCNCACANNCAANCCGGAAGGCC
 CAAAGGCAAAGGGG

Sequence 522

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTNCTCGGTAACGGGGC
 GACTTAATGGGNAGATCAACGCGAAATCCTTGAAATATATANCAACAGCAAACACAAAA
 ACTGNAGCAATGAGGTTTCATGAGATTGGGTAAAGTTCTGCCGATAAAAAGCCTCCCGTAAA
 GCTCGGACTTTGNCCGTCTGGTGGCCAACAAATGGAACAGAGCTATGACTGCACCCTCA
 AACTCAGTACCTGCCCG

Sequence 523

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTACAGGGTTGAGTATTCCTAATCTGG
 TAATCTGAAATTTACATGCTCCGAAAATCACAACTTTTTGAGTGCCAACATGATGCTC
 AAAGAAAATGCTCATTGCAGCATTAAAGATTTTCAAGTTTTTGGGTAGGAATGTTGAAGT
 GGTATAATGCAAATACTCCAAAATCTGAAGAAATCCAAAGTCTTAAATACTTCTGGTCCC
 AAGCACTTCAGATAAAGGATACTCAATTTGTATTCTTATTTTGGAGATAAGAGATGGAGA
 CTTACAGGCTGGGTGGTTGGATTGGTTGCCTGTTTTTGTGATGTTGTAGTGGAAGCT
 AGGAATGGTTTTTACATTTTTTAAAGTGTACCTGCCCG

Sequence 524

AGGTACCGGCCATTGGTGCCTTGTGTCAAGTCCCAGAGGGCTGCCTCAATGCCAGCAGCA
 ATGCCCTCCACCACCTCCTCACTCAGTACTGGGTCTGGGAGCTCCCGAAGGCTGTGGAGG
 CCAGGGCACAGAGTAAAGCTCCTGGGCTAAGCCAGTGGCCAAGCCAGAAAACAATGCTGG
 GCAGAAAAGGGTTACAAGGCAGGTAGTCTGGACACTGGATTCAACAGCTTGCCATCAGCC
 AGGGAAAGTGAAGCTGAGGATGCATATGGAGCAGGGCCAGGAAGATCAGGAGAGCTGAGG
 GAGAACAGGAAAATTGGGAGGAAGGAAGAGGCAGCTTANCAGCAAACCTCAGGAGAAATA
 ACCAGCAGCCCTCACAGATTTGTGATTGTCTCTTAAAAAGATNTATTTCTCTTCTTGCC
 TGAATGTACCTGCCCG

Sequence 525

CGAATTGGAGCTCCACCGGCGGCCGAGGTACCACCGATAATGCTATTAGCCCAAACCGTG
 GGTGTTTTNTAAATATTAATAGGGGGCTTGATTCAACAAAGCCACAGACTTAACGTTGA
 AATTTTCTTNAGGAATTTTCTAGTAACCCAGNTTCTAAAGTAGCTACAGCAAAGGGGAA
 ATATTATGTGTGANCATTTTTCTTCTTATGCTATATCCCAAGTTTTTTTTCAGGACTCAT
 TTTAAGTNAAGGCTAGAGTTGAGTAAAGGAAATAGAGCCCAATGAGGGTAAGGTTGTC
 TGAGCCATTGAAAGNTTAAATACTGAAAAGAAATGGTCCACTTTTTATTTCANNGAAAA
 TA

Sequence 526

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTCCACGACAAATCT
 TCAGGCTCTGCCTCTTCAACTTTTTTACTCTTTCCATTCTGTTTTTTCCCATTTTTTG
 AATGTAGTTTTGTTGGAGGCCATTTTTATTGCAGACTTGAAGAGCTATTATTCACCGCC

Table 1

CCNCANAAANCCACACAAAAAAACCANGCCCGGGAACAAAAAGGGGAAAACCCCGGGG
GGG

Sequence 534

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCANGAGGCCTGAATTCATGTC
CACAATGACCTGTGCTTAACCTATTCCAAAGGTCGCTAAAGATACTGTTACTACTATTGAG
ATATTATTGGCTACTTCACGTTTACATAGTAAATGTTTGCAGCATATAACATTCAATCAT
AAACCCATAATTAACTTATAAGTGTTAATGGACAACCTGTGCTTTGATTTTGCCTTTAGT
GATAAGAAAAACAAAGTAGTGAAATGGGTCACTCCTCAAAGCATGGAACATTTTAACCTTG
CCTAGTAAGGAAAAACAAAACAAAATATAGCAATTACATGTGGAACCCGTAACCTGCAAA
AAGTAACACAAATATTGTCTNAAAAGGTACCTGCCCGGGCCGGNCGCTCTAAAACTA

Sequence 535

CGGGCAGGTACATGAAATGGTTTTGAAACAATAGGAACAGATAAGTCCCAGATAGGAGGC
TCACTGATACTTAATTGGCCATGTCACCAATGTTTGTGTTTAAAGGGAGTTTGGTGGTTGC
CATGTTATCATTTTTTTTATCTTTCTTTCTTTTCTTTCTTTCTTTCTTTCTTTCTTTCT
TTTCTTTCTTCTCTTCTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTCT
GTAAGAATACTGGGTCATAGTTTCATCCAGTGAAACTCTGTGACAATCCTTCACTAGAA
GAGAGTACCT

Sequence 536

CCGCGGTGGCCGGCCGAGGTACCTTTCTCCCTCTCTACCAGTTTTCTCTAACTCTCTC
ACTTTCTCTTTATTTCTTTCACTTTCTTCTAATGCATTCTGCAAGATCCTGCTTTAGCAC
ATTTATTTCTCTTTCCGTGACCTCAGCTCGTGGAATGTGNATAATTAATCCATGCTTT
CAGGTGAGACAAAGACCGAGTTTCATCTGGCTTCTGCACACTAAGGACTTCTTTCATAAG
CCTCCTCGGTATTTGCTCTGAAGTTTCTTAAAGTTTCTGGGCTGAGGGTCAAGAAGCTG
TTCTCTTGAATCTCAAGTGGTTGTTTAAAGCATACCAAGTTCTTGCCCTTCGGGGATTG
GAAGTTCGACCTGTAGCTGGTTTTCTCTTCTTCTTCAAGAAGCTTCTCTAAATCTCNTT
CTGGNAGGATCTTNGCAAAAATCTTNGCAAGTTGGCTGGAATTTCTGACCANTCAATT
GGTCAGGTAGGTGGGAATTTTACCTAAAAGAAATGGTAATTAAGACAAAGGATGGGAAGA
TNGAATTTGGGAAGTCTTGGGGGAAGAAGGGTTTGNACCAAGGTTTTCCCAAGGGGAT
NGGGGCCCCCAANTTAAAGTTTGGGGNGGGAATNGGGTNTGAAGNTNAAAACCTTAGGTN
TTGCTTCCCCCTCCTTGGGGGGAANTTGGGGCCCCNGNAAANTAAATCTGGGNAAACC
CCCTAATTTGGGNAAAGGGGA

Sequence 537

AGGTACCCTCTCATGAGGAGGAATCCATGCTGGAGGATTCTCATAGGCAGGCAAGAAAAAC
CACCGGGTAGTCATCATAAGGAATCCGGCTGTCCATCTCGGGCAAGGCCTTAGCTAAACA
TCTTCTGGATGCCAAGCAACCTGTCAGGTACGCGGGAAAGTTGAAGGCTACAAGAAGACC
AAGGAAGCTGTTTTGCTCCTTAAGAACTTAAAGCCTGNAATGATATCAAAAAGGTCTAT
GCCTCTCAGCGAATGANAGCTGGGCAAGGCAAAAATGGAGAAAACCGTCGCCCCGTATCN
AGCGCAGGGGGCCCCGTGCCATCATCTATAATGAGGGATAAATGGGTTATCAATCAAAGGC
CCTTCAGAAACATCCCTGGAATTACTCTGCTTAATGTAAGCAAGCTGAACATTTTGAAGC

Sequence 538

GGCGATTGGAGCTCCCCGCGGTGGCGGCCCGCCGACGGTACGCGGGGGTGGCGGCGT
TGGGTTGAGCGGGCTTTTGGGAAGNTNGNGCGGGAGTTCTGTGATATGAGCAACANTGG
ACCAGANGATTTTATCTCTAGCAGCNGAAAAACAGCNGACAACTGCAAGAATTTCTTG
GGCAGGGCCTGGGGAATGCTTTTTTATCTCATATTAGTGCCTGTGATGGCATCTTTCATC
TAACACGTGCTTTTGAAGATGATGATATCACGCACGTTGAAGGAAGTGTAGATCCTATTC
GAGATATAGAAATAATACATGAAGAGCTTNAGCTTAAAGATGAGGAAATGATTGGGCCCCA
TTATAGATAAACTAGAAAAGGTGGGCTGTGAGAGGAGGAGATAAA

Sequence 539

GGTACACTGATCAGGGACTGGAATCTTCTTTCCAATTTCCATGGCATATGCTTTCACTTT
GCTGAGGTTTTTTTTTAAAGTCAAGTAGAGCTTATCTTGGTATTCTATAGGACTTGCAGT
TGTCTCTGGAGTTTCTTCTGGGAGTTTTCTTTAACAGTTTCTGACAAATTTCTTGAGTC
TATATGTATAATTTGGGTATGAACTGAAGACTCCCCAGCTGTGATCTCTCAGNGTC
TGTCTTAAACGGCAGCTTGTCAATTTCTTGGCCAAGTGGGTCTATTTCTGAAAGAGAGAT
GCTGGCTGGTATGTCTCCCCTGTTTTCATCTTCGCCGTCTATCTGAACCCACACCCTTTGT
GAGCATAGTGTGGAAGCCAACTTTTTGACC

Table 1

Sequence 540

CCGGGCAGGTACAGGCTGTTACCAGCTTGCTCAGAATCACGCCATTCTTTCAGCCAGAC
 CTGGAAGCCCAAGCCGCCCANCGGCTGCGGNCGGGCCANATTCAGGGNCCNANCTTGA
 NCTTATTGNATCCNACTTCCAACNAGCCCGGCTTCCCTTCNAGCTTCCCTTCGGTCANT
 ACTTTCTTTCTTCGNNTTTTTGGGANCITGGCAACTTTCGGCGGGCTTCAATGGCCCN
 TGGGAAAGGGACCCCTTGTTGGGCCCATGGTCNTGGGGGAAAGAGGCTTCCCTCAGGGGC
 TCGCAAGGAAGGAGTGAAGACTTGTGACCTCGGCCGCTCTAGAAGTAGTG

Sequence 541

GCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGACTGATCTGGGTGGAAGGTGACTCCTG
 TGGGCGCGATGATGGGGTGGAGGTGTCTGATGGAATCCCGTTGGGTCCCGGCTGCCCTA
 CGTCACCCCTTTTACCCCTTAACCTCCGTAGAAACCAAGTCCTCTGTTGCCTTGCTGTCTT
 TTGGTCCAGGGGGTCCAGGTGGTCTGCTCCCTGGAGCTCCAAGTGGACCCATCTGTC
 CCACATGCCCGGGCGGCCGCCCGGGCAGGTAATCTCAGAGAACAGGAGATATGTGTGCAT
 GCCTTAGAAAAAGCCCTTGAGTAGGTAAGGAAGGAAGAAACCTATGGCAGACAGGATTGC
 TGCAGCCAAGGGGGCTTCAAGCAGAAATGAAAGAGATGGCTTGTGAAGCTGCCCGTGTCTG
 TGT

Sequence 542

TTTTTTTTTTTTTTTTTCGNNTGGGGGACCCAAAAACCCCAANAACNAGGGGACCCC
 CCGGGCNGCAGGAANTCGAAAAAAGCTAAACGAAACnnnnnnnnnnnnnnnnnnnnnnnn
 nnn
 nnTNCCTGGGGCNGGGGGGAAAAAGGGNANCCGCNCACAANNCCANANAACAAACGAGCCGG
 GAGCAAAAAGGGNAAAGCCGG

Sequence 543

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTCTCTTTAA
 CCATTTGGTCTCTGATATAAACTTGCTTAACTGGCAAGATGGCTCACTTGGTCTCTAA
 GCCAACATCAAGAAATATTTAGCTGTCTTAAACACAGGTGGGAGACTTTTTTTAATGAAA
 TACATAGGAATCCATTAAGTAACATTAGCATGTCATGTGTTAAATAGCTTCATTTAAAAA
 TGTTACAGATCAACAGAAGGGAAATCAAAAACCTATTTTTCTCAGTAACCTTTACATA
 CTAGTGTAATTAAGGTTTAACTGGAAGAAAAATTCAGCATAAAAGTATAATTAAGTAA
 AAAGCTGGTATTCCACATTCCTGTTCTATGAACACCTGAGCTGGCACAAAAGCTGAGTA
 GTTTAATGCATTGGCATATAT

Sequence 544

GAANTGAAGCTCCACCGCGCGCGCGGCCCGGGCAGGTACAATTAGAAAACCTGCATC
 TTTAATACAGTGAGATTTNGTATGCATACACTCTGGTGTCTTCATTTTGAGCCCATTA
 TATTGGCTTAAAAGCCANAAAGGTGCTCATGCATGTAATTTATACTTGGAGCAACGAATG
 CCANTGTATGTGGNCGCGTNTGTGTGCACNTTTGAAAGGNAGGAGTTTTTAGAAGNAATG
 AGAAGGAAAAATTTNCTTTCTTGGGCATTCAATTAATAATTCAGNGTGAATATCCTTGATC
 NCTTGGCCGNTCTANAAACCAGNTGGATCCCCCGGGGCTGCAAGGAAATTCGAANTNTT
 CAANGGCTTATTTGANNCCCCGGCGACCTCCNANGGGGGGGGNCNCCGGGTACCCCAANCTT
 TTT

Sequence 545

CCGGGCAGGTACATTATTGTTTATNTGAAATTTTAATTGAACTAACAACTCCTAGTTTGAT
 ACTCCCAGTCTTGTCATTGCCAGCTGTGTTGGTAGTGCTGNGTTGAATTACGGAATAATG
 AGTTAAGAACTATTAAACAAGCCAAAACCTCCACAGTCAATATTAGTAATTTCTTGCTTG
 GTTGAACTTGTTTATTATGTACCCTTCGGGCGCGCTCTAGAAGTANTGGGATCCCCCGG
 GGCTGCAAGGAAATTTGATATCAAGGCTTTATCGGATACCCGTTGACCCCTCGAGGTGG
 GNGGCCCCGGGTACCCAAGCTTTTTTGTCCCTTTAAGTGGAGGGGGTTTAAATCTGGCG
 CCGCCTTGGGCGGTTAATTCATGGGTTCAAGCCTGGCTTTCCTGGTGTGGAAATTTGG
 TTANTTNCGGCTTCAACAAATTTNCCAACAACCAACATAACCGAAGCCCC

Sequence 546

CNGCCGGCCGAGGNACCAAAATTTGTGGGAGGGNANTNGAAACCCGGCAGANTTTAANAC
 CNNATGCCNATAAANGGGGGGNCAGGGGANGAAGACGGGGGGCCCGGGNGAACAAAAACC
 ACACGGNCTCTANGGAAAANGNGGAGAGAACTGAGAGCGAGGTGNGGCAAGAAGCAGGCT
 CGGAGCCGGAGGAGGGNGGCTANCGGCNNTAATCTCAGGGAGAGATGGCGCNGTGCAGNC
 AATGATGCAAGCNGGNAAGGGACCGGCGGGGAGGGAAAGGGACGAGGGGAAG

Sequence 547

Table 1

CTTCCGTGTGGCTTGTGGCTCAATCATGATGTTGATANGAGAAGGTTTAGTTGTGTCTGC
TAGGCTCTGCCTCAGGGATTTTTGGAGTTCCTCTGGTGTGTGTACCT

Sequence 554

CCGCGGTGGCGGCCCGAGGTACCCCGTTCTGCCTGAGCATTTTTTCCTAAAGGGAAGAAT
CAATAGTTTTCTGACTGTTTTAACAGCTGAAAGCTCCAAGTGGAGGCAGAAGATGGGATGG
CTTTTCACACACGTGCGTGCAAGTTTAGCCACCTCAAAGGCCTTGTCTTAAAGCAACAG
TGCTGTTTTGCATTATGAAATGTCTCTGGAGTTCCTTTGGAAAGGCTGCTGGTGGGCCA
CATGGTCACGATACTTTCAAGTCACACCCTACTTTGTGACCTTATCCTCAGAGTAAAGGC
TTTAGAGGAAAAGGGACCCACAGTCTCACCCATTACCTGGCTGTCAGCATCTCCATATG
CTCCTGGCTGAGTTTTATTGAGCATCAGCTGGGGATGTGAGCAGAAACCTGAATCCTTGA
GACAGGTGGTTTTTCAAAAAGGAAGCCATAACAATGAGTGGCTTAGTACCTGCCCG

Sequence 555

CGAGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGAAGAGAAAAGATATTTAACCAT
TCTCAGGCTAATCTNTTAAAGCGCTCAAAGTGTTCACAAGTGAAGGGGAGGGATTGT
TCTCAGCCCCAACATTTACCCAGTTNTTTTTCTTANACCACNCAAAAAACACTCTCNAATT
TACGGTGCCTTTANACCTTTACTTT

Sequence 556

GGCAGGTACACAGCGGCAGTCGCGCCACACGTCCATGACTGGTCGTCCTAGATTTTAGG
TGTCGATGAATACGGCCCACTGGGAACTGCAAGCCGGCTCTCTGCGAGCGGGAAACCGCC
TTTGCTTTGGCCTTTCCGGAGTCCTTTCCAGCCTTACCGCCAGCCATTTGAATTCGCT
GAAGCTTAAAGCAAGCAAGGCAGAGAAAANGGNTAATCGGACCCACGGNNGGNATCCAC
CAACNTANTNTTTTTTTGAAACCGGGAANAAAAAAGGGGNTTTTTNCCCCNTTNC
CGNNNNCCTTTTTAAAAANCCCCCNCGCCNTTTTTAAAAANAGGGGGCCCCCCCCCGC
NGGGGGGGGGGNNNTNTTTNAAANNTTTTTTTCCCCCCCCCCCCCNNGGGGGGGG
GGGGGGGGCCCCCNNNCNATTTTTTTTTTTTTTTTTTTTTNNAAANAAAAANAAAAANCCCCC
CCCCCCNAAAAA

Sequence 557

CCGCGGTGGCGGCCCGCCCGGGCAGGTACATGGGCTGGAAGTGGGGATGTCCATGGCCCA
GAGACCCCTCCAGCTTCCAGCCCCTGGCAACAGCGGGAGAGCAAACCCAGCACCAGGGAC
TTGGCGTGAGCCAGGGCCGGGAGGCCCAATCAGGCTCTGGGGTATCAGANCAACCAAN
TTGACGTAGTGTGAAAAATAGTATTCCTTTGATAAAAAATACTGTCCTTGGTCTTCTC
TAAGTTTGAAACACCCTGGGGAGCTTTATTTTTAGCAAAGCCAATTTCCCATACCCACC
CAAAANTTTTTNCATTCCAAGTTTTAGGNTAAACAGGNANTTTTTAAACCGTAAAAAACTT
TAACTTTAAATTTTTGGAAAGGNCCTTTGNANTTTAAAAAACCCNTTGGGCCCCNNTT
TTAAAAAATNANGGGGNNCTNCCCCGGGGCTCTGGGNGGNGAATNTTTTTNTTTAA
NAGTTTTNTTANTAACCCCCCNCCCCCTTTTNGGGGGGGGGGGCCCC

Sequence 558

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTTTTTTTTTGAGAC
AGAGTCTCACCCTGTCACCCAGGCTGGATGGAGTGCAGTGGTGTGATCTCGGCTCACTGC
AAGCTCCGCCTCCTGGGTTCACACTTTTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACT
ACAGGCGCCCCGCCACCACGCCCAGCTAATTTTTTTGTAGTTTTAGTAGAGTCGGGGTTTC
ACCGTGTTAACCAGGATGGTCTCGATCTCCTGCCCTTGATCCGCCCGCCTCGGCCTCC
CAAAGTGCTGGGATTACAGGCGTGAGCTACCACGCCCCGCGGAGGTACTGTTCTGTTGG
CCGAGTGGAGACTGGTGTCTCAAACCCGGTATGGTGGTCACCTTTGCTCCAGTCAACGT
TACAACGGAAGTAAATCTGTGCAATGCACCATGA

Sequence 559

CTATAGGGCGAATTGGANCTCCCCGCGNGGCGGCCGAGGTACAAGTTGGGGTCATAATT
ATCGAGTCTCTTGATATNATCACAATTAAGTGTGCCCCCTGCACTTCCTGCTGCAATGACT
GCTGGTATTGNGTATGCTCAGAGAGGACTGAAAAAAACGGTATTTTNTGTATCAGTCCT
NNAAGAATAAATATTTGNGGNCAGNTCAATCTTGNNTGNTTNGACAAGACTGGAACCTTA
ACTGAAGATGGTATTACATCTTTGGGGGANNCAACGAGNGGAAAANGCNCAGATTCTTT
NACCANAAGAAAATGTGTNCCATGCTGNNNTTGGTNAACCCAGCCNGTTGCTAGCANG
GCTACTCCCCATTCACTTACAAA

Sequence 560

NCTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGAAA
CTGCCGCCACATGCACTCCTCCACCGCTGAGAGTTGAATAGCTTTCTCTGCAATGGGA

Table 1

GTTGGGAGTGATGCGTTTGATTCTGCCACAGGGCCTGTGCCAAGGCAATCAGATCTTTA
TGAGAGCAGTATTTTCTGTGTTTTCTTTTAATTTACCTTCAGTCAACTTTACCAAGAAG
TCCTGGATTTCGAAGATCCGCGTCTGAAAGTGCAGTACCT

Sequence 561

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGAACTTGCTACTTTTT
TTTTTTTTTTGAGACAGAGTTTTGCTCTCATTGCCCAGGCTGGAGTGCGGTGGTGCTAT
TTCAGCTCACCACAACCTCTGCCTCCTGGGTCAAGTGATTCTCCTGCCTTAGCCTCCCG
AATAGCTGGAATTACAGGCACGCACCACCATGCCTGACTAATTTTGTATTTTAGTAGAC
ATGGGGTTTCTCCATGTTGGTCAGGCTGGTCTCAAACCTCCACCTTCAGGTGATCCGCCC
ACCTCGGCCTCCTGAGGTGCTGAGATTACAGGCGTGAGCCACTGTGCCAGCTTGCTAATT
TTCACAGAAGTTGATGGCAATTCTTCACATGTAAACAGTGCCAGTGCCACAGAACCTTTAT
ATATTTTTTGAAGCCAGTACCTGCCCG

Sequence 562

CCGCGGTGGCGGCCCGCCGGGCAGGTACACAAGTCAGTCCAACAGTTAGTGTTAATTACT
AATAATATATGAAAACCTGCCAACACAATTGCTGCTACATCACCATAATTAATTAAC
CACTGTGCGAAAAACACACATAAATTCAGGTAAGACTAAAAGCTGTCTCACAAAAGAAA
AAAGAAATCCAATGGATCCACTAATGCTATCAAAAGGGACATGCAGGAATGTAAATGAC
ATTTTAGAAATGTGTGTTTCTAAAAAGAAAAAATACACTAAAATGCCAGTGGACTA
TAATTCATTCAAAACATCTTAGTGTTCTTCCCAAAGATCTTGATCTGCTCAGTAATTG
CTTCACAAGATCTATCACAGCCATCTTTGGAGCGTATGGTTAGGCTGGTCCCTCGTGG
TGGTAGGGGCAGTCTTTTGAAGCTTTAAGTATCTGGTGGTACCTCGGCCGCTCTAGAAC
TAGGTGGATCCC

Sequence 563

TTNCAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCGGAAATTATCTACA
ATGAAGAAAATTTNTTGGNAACTTATCCAACAGCCTGGGCAAGCTACCTCTCGCATGGG
AAATTGATAAATCTGAATTTGATGGGGTGACCACAAATTCGAAACACAAATCAGGCAATG
CAAAGAAACAAGTTTCCAAGAGAAAACTTCAGATAAAAAGGGAAGATATCAGAAGGAAT
GTCCTCAGCATTCTCCTCTTGAAGATATTAACAGCGGAAAGTATTAGACCTCAGACGAT
GGTACCTGCCCG

Sequence 564

CAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTGGNCCAGTAATTTATNGATTAAATCATNGTAATCNCCAATANAGATTN
CAATAGAGANCNCCAACATGATTNCATGCNTTNAGNGGANAAATNTTNCNGGTTAAG

Sequence 565

AGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACTGGGGATACAGGAG
AGAANCNANCNNNTTGTCTTTGATCNNAANGAATCCGCATNGTANAAAGTGGAANATGN
NATGNGATGNACACATTAATTATNATCATNCCCTTNNNCTACCTAAAATACTCGCAGTGG
CTCNACCTTACGCATATAAAACTNCGCATTCCAGCCCACCGCCTTCA

Sequence 566

NCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATCTCATT
TCATAAAACAAAAGAAAATCATTATGGACATGTGTGTGTAATAATGCTTTTTGGAAGGA
CTAGAACTAGATCAACCAGCTAAACAGAAGTTCTTCTGTAGCATGGCAGCGGGTTTCC
ATTTTTTATTAGTTTCTAGTTTTTTAAATATAAAAAGAAATGTTTTTACAAAGAAAATAG
TTGTTTATTATGCCTACAAAATTAATATTTATTTATTGTGTATATATATAAACCTT
ACAAACACTTAAAGTTTATACATATACACACTAGATATGGCCTGTGAATTGTACCTCGGC
CGCTCTAGAACTAGT

Sequence 567

TACTACAGGGCGAATTGGAGCTCNCCGCGGNGCGGCCGAGGTACTCCAATGCGTGGCTC
TCCTGTGTGATTCTTNCCTCCACATGGTTGTGAGTCTTGACAATCGCAGCCCCTGCTT
TTCCCTTCCCTGGGAGGCTAGAACANAGAAGCCCTTAC

Sequence 568

GAATTNGAGCTCACCGCGGGGGCGGCCGCCCGGGCAGGTACATTTTTAATCTGTTATAGT
TNTTTGCAGTATTAATGTTGAGTAAAAANAAAAAAAAAAAAAAAAANNGGCTTGTA
CCTCN

Sequence 569

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGCAGCTCATCCGCTCCT

Table 1

GCTGAAGCACGGGGCCAACGCAGGTGCCAGGAACGCAGACCAAGCCGTCCCGCTCCACCT
 GGCCTGCCAGCAGGGGCCACTTTTCAGGTGGTGAAGTGCTGTGTTAGATTGCAATGCAAAACC
 CAATAAGAAGGACCTCAGTGGAACACGCCCCCTCATTTACGCCTGCTCCGGTGGCCATCA
 CGAGCTTGTGGCACTGCTGCTACAGCACGGGGCCCTCCATTACGCTTCTAACAATAAGGG
 CAACACAGCGCTGCACGAGGCTGTGATTGAAAAGCACGTCTTCGTGGTAGAGCTGCTTCT
 GCTCCACGGGAGCGGTGAGTTCAGGTGCTGAACAAGCGGCAGCGCACGGCTGTAGGACTG
 TGCTGAACAGAATTCAAAAATAATGGAATTGCTTCAAGGNGGTACCTCGCCCGAGGGGCTC
 CTTCTTATGACTCCATTCAAATTTACGGGNTATTAAAGCAGGGGCTTCAGTGGCCCCGGG
 GTCCCT

Sequence 570

CCGCGGTGGCGGCCGAGGTACTAAAAACACAAAAGCACTTATCAGACACCCTATGGCATT
 TGTGCTGAAATGTCTACCGGCTGGAGATTAGCCTTGAGCCGAAGCAGCCTCAGAGCCAA
 CACTGGCTTCTCCTGTAAATCATCTCCAGCAGAGGACTCTGACTCAGCCGGAGAATTTT
 CTTCTTCTAGTTCAGCATATTCATCAGAGGTTTCGTCTTTTGTGTATCTTTATCATTAT
 CGATGGTGACAGCTTCATCCAGGGCAGCAATTTGTAACCTTGCGGGTTGTTTCAGGGGTTT
 ACTTCCGTGGGTTTCCCTCGCCGCTGCATCTGTGACCTCTGGCCCCGGTTTCAGCACTGA
 CTGCTTGTGGGTCTCCGGAGCAGCCTTCCACGTGACCTGGGACAGGCAGATGCCTCTTTT
 ATGACCACAACCTGGTAGGTACCTGCCCGGGCGGCCCGCTCTAAACTAGGGGGGGATCC
 CCCCC

Sequence 571

GTATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTGAAAAGTT
 TTATTCCTTTTGAGGACAAACAATTAAACCACATCCAAGGTCTTAACCTACAGACAGAAA
 CCAAAGTAGCCATTTAAAGCGTTAGATATCGGATACAAGACATACACTGGGGAGAATGCT
 TCACCATCTGAAGCTCACACCACAATGGCCAGTGGACAGCTGTGCACTCTGCTTGTGCT
 TAAGTGCTGGGTGTGGCTGAGGGGAAGGCGTGTCTGCAGAACAGAAGAACAGCTGTGTT
 TCACAAGTACCTGCCCG

Sequence 572

CCGCGGTGGCGGCCGAGGTACCTCCTAAACAACACAAACTCAAATGGCTCTAAAAACCT
 GCAGTGCCCAATCAGGCTGTGCATAGCAATTGCAACCCGTCCAGCCAATCTGTGATGGATG
 TAAAAGGTCTGTAGCTCCAAGTCCACATGAAGTGAGTGTCTTCAATGTGTTTAGAATAGT
 GAAGTAATACTAAGGTCACCTCTGAATAATATTTTTGTCTTTTTTTTGTGTTGTATGAACA
 ATCCATTGGTCACTTAGACCCCTATGTAAAAATAAAAGAATCCTCAAGGCATGAAAACAC
 CAGTAATCTGTAATCTGCAGGACTCTCCCCCTGTCTGGGAAAAATTTGCCACAATTTGC
 CTCAAGCAAATTCCTTCTGGTCACTCAAGGCTAAGAAAAAATTCAGGATTGTAAGGAAG
 TGGAAANTTTTTCTCTCTCTCTCTTTTTTTTTTTTTTTTT

Sequence 573

ATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACG
 CATTTAAATAAACCATATAATTTTACCAGTAAGAAAGCCGATAGTTAAGTTCAATTCAA
 ATTGGAGTTCATAAGTTAGTAATTTAAATCCTTAGACAAAGTTACAGAAAGTGCACTCTTC
 TTATTTTCCATCTTCATACAATGTTAATTTTTTTTTTGGTGTATACCTTTTAAAAAAT
 AAAACAGCCAAATACTTAAGCAATATGTACCTCGGCCGAGGTACGCCAAGGGCGCCCTG
 GAGACGGAGGATCCTGCGTTAATC

Sequence 574

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTCTTATCG
 CTCAACAACAGAGCTCCCATTAATTGGGAACAGTTCTAACACTCCCCCAACTTCTCTCC
 AACGCCTAAAAGCTTCAGAATGGTTATGTGGCGCAGACCAAAATTGCACGCCTGACCACT
 GAGGGCAGAGAGCTGCTGTGAATAGGCCAGTCTTCATCGTTAGGAGCAGAGATCACCAG
 CAACCTCCTCCTCCACCGGAACCTGGATAGGAAGTTCTCCAGGGACTGCTTTTTGTCTCT
 TTTGCAACAATGCCCTCCTTCTTCTGCTTCTCATATCTTTGATTGCGGACTGGAAAGT
 ATCGATCAGATCAAAACACAGACTTCATTGTTATTGGTACCTCGGCCGCTCTAGAACTAGT
 G

Sequence 575

CTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACACAAGGGAGAGGGCTCCT
 GGGCAGTGACGGTGGAAGCTCCACTACCTCTGGGATTAGGGGCACTGTTTCAGAGTCTG
 TAAGGTGCTGAGGATGTCATTATGCTGTGCTCCTGTGGCTGGTTCTCCCTCCAGGGAG
 TCTTTCCCCAGCCTCAGCTGGTTCCTGCCAGCCTCAACCCAGGCTTGCCTTCAGCACC

Table 1

TCGCTCCAGGCCTGGCTGTGAGAGCCNAAAGCGTAACCTTGCCCCGGGGCGGGCCCGGGG
CAGGTACAGGGGGTGCTGCAGGTGGCAGAGTGAATGTCCCCCATCATGTGGCCCACTCT
CCTGGCCTGGCCATCTCCCTCCCCAGAAACAGTGTGCATGGGTATTTTGGAGTGGTANG
NNGAACTTGTTTACTCATTGAAGCAAAAATTCTGCTTCCTTTTATTTTATAGGAATAGA
NGAAGGAAAGGGTCAGAATGCGTGCCCAACTTCTTTACCCCCCAA

Sequence 576

GGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATGAACTGTAGAGTCA
GAGTTAATGTTGACAAGGTATTTTTGATTTAATGAGAGAAATTCGAGCGAGAAAGATGG
AAGACAGCAAAGAAAAGAATGGAAAAAGAGAGGAAAGTTTAGCCAAGAGAATCAGAG
AAAGATGCTGCATTTTATAATCAAAGCCCCAACTCCTTTCTTATCTTGACCATACTAATA
AATAATTTATAAGCATTGCCATTGAAGGCTTAATTGACTGAAATTACTTTAACATTTTGG
AAATTGTTGTATATCACTAAAAGCATGAATTTGGGAACTGCAATGGAAAGTCAAATTTACT
TTAAAAAGGAAATTAATATGGCTTCACCAAGAAGCAAAGTCAACTTATTTTCATAATTGC
CTACATTTATCA

Sequence 577

TTAGGGCGAATTGGAGCTCCCCGCGGGGGNGGGCGAGGTACTCATGACGGANGTTGCCGC
TCGCCCACCTTGTCAGCAGCGTACTTGTCATTGTCCAGGTCACAGGTCTCGAAAAAGCGG
GTGGTGCAATGCTCCATGGGGATGAGGGGAGCACGCAGTGGAGCCAGCTCGGTGTGGGAG
AGGTACCTGCCCCGGCGGGCCCCGAGGTACCAGAAAGATAACGGAATGTAAAACTGGAATT
ATGAAATCTGGAGTTATTTTGGGAAATGGCAGAAAAAAGACAGTAAATACGAAACAT
ACTTGAAAAGAACAATGCAAAATTTAGTAAGATGAAAGGGGAAATCTATTAATGTTTG
AGAACATTTTANAGCACGGGATTTGGNAAATTTCCCATAGGACAGATGGA

Sequence 578

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTCAATAAGAGTGT
GAAGTTTATTTATATAGCACCATTGAGACATTTTGAAATTGGAATTGGTAAAAAATAA
AACAAAAAGCATTGAATTGTATTTGGTGGAACAGCAAAAAAGGAGAAGTATCATTTTT
CTTTGTCAAATTATACTGTTTCCAAACATTTTGGAAATAAATACTGGAATTTTGTCCGT
CACTTGCACTGGTTGGCAAGATTAGAACAAGAGGAACACATATGGAGTTAAATTTTTTT
G

Sequence 579

CCGCGGTGGCGGCCGAGGTACAATCTCAGCTCACTGCAACCTCCGCCTCCAGGTTCAAG
TGATTCTCCTGACTCAGCCTCCCGAGTAGCTGGGATTACAGGCATGCACCACCATGCCTG
GCTAATTTTTGTATTTTTGTAGAGACAGGGTTTACCATTGTTGCCAGGCTAATCTTGA
GTTCTGAGCTCAAGTGATCCAACCACATCTTGGCCTCCCAAGGTGCTGGGATTCCAGGT
GTGAGCCACCGCCCCAGCCAACAATAATTTTTAAGGAGAAATACCAATCCAGAATACT
GATTACCTCTGGGGAAGAAAAACAAGAATGAGAGAGAGATACACAGGGAACCTC
AACTGGTTTGTCTAATATTTTA

Sequence 580

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACATCTTTGAAGG
GATGGAGCTGCGCGGGGCTCCTCTGGTTGTCTATCTGCCAGGGCAAGATCATGCTGGAAGA
TGGCAACCTGCACGTGACCCAGGGGGCTGGCCGCTTCATACCCTGCAGCCCGTTCTCCGA
CTATGTCTACAAGCGCATTAAAGCACGGAGGAAGATGGCAGACCTGCATGCCGTCCCAAG
GGGCATGTACCTGCCCCGGCGGCCGCCGGGCAGGTACCAAAACCAACATGACACACAG
GAAAAAATAAAAGTGCAATTTTAAATATAGTGAATGTGATACATGTATAATTCCTCATAAC
AAAATGGTCAAAACCTTTAAAGATCCACAATAGATATCTGAAATCTTAGCAATGCTGT
ATATATTTTGAGGACTAAATGATGAATTTATATTCAAAATTTGGTCAAATATATT

Sequence 581

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCTCCTCGATCATCTCGCGGAGGGCCAGGAA
GTAGGGCCCCGTTTTATTGGGGCTCGGCGCCAGTCATAGGGAGCCCCCTCGGACATCCTC
ACCCCGTGTGTAGCCCCAGCCCAAGGCTCTCCACCATGGTGTGGAATAGGAACCCAC
GCTGCTTTTGTGGGGTCCAGGAACCTCAGTGAGAAGGTCTTCCAAAGCCAGGGACACG
TACCTCGGCCGCCCGGGCAGGTACTCCAGGACGAAGAGGAAGATCATGCTTGATACCTTA
GATTGGTTTTCCAGGGAAGAGGGCGGAGCAGAGCAAAGTCACTGTGAACCTTGGGCCAG
GCCCTGGCTGGGCCAGCTCCTGAGAGCGTCTCGTGTTCANACCCTTGCCCACTTTACCC

A

Sequence 582

Table 1

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATCATTCCACTTCAAGA
 AATTTTTTTTTCTTTTTTTGGAGACGGAGTCTTGCTCTGTACCAAGGCTGGAGTGCAG
 TGGCAGCATCTTGGCTTACTGCAACCTCTGCCTCCTGGGTTCAAGCAATTCTCTGCCTC
 AGCCTCCCAAGTAGCTGGGACTACAGGCGCACGCCCCACACCCAGCTAATTTTTGTATT
 TCTAGTAGAGACGGGGTTTACCATGTTGGCCAGGATGGTCTCAATCTTTTGACCTCATG
 ATCCACCCGCCTCGGCGTCCCAAAGCGTTGGGATTACAGGCATGAGCCACCGCACCCGGC
 CTCATTCAAGAATTTTTACAAGCACAGAACTATATCTCAAGTGTATGATAAACTGGT
 ACTATAACTATATTGGATTATAATATACAAGCTATTTGAGGGGGGGTGATAGCTTCA
 CTACCTTCACCAAGCTTAGGAATATATATAATCTACTTTG

Sequence 583

ACTATAGGGCGAATCGGATCTCCCCGCGGNGGCGGNCGCCCGGGCAGGTACCACTTCTGA
 TGATGGAAGCAGTGACCTGGATCCCATAGAACACAGCTCAGAGTCTGATAACAGTGTCTT
 TGAATTTCCAGATGCTTTCGATAGAACAGAGAATGTTATCTATGCAGAAAAATGAAAA
 GATAAAGTATTCTAGGTTTGTCTGCCACAACTAGGGTAAAAGCAAAACAGAAGCCTCT
 CATTAGTAACACATACAGACCACTTAATGGGTTGTACCT

Sequence 584

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAGTGAAAGAAGCCAGAC
 ACAAAGGTCTCATACAATTGATTTATATAAAATAGCAAGAATAGATAAAACCATAGAG
 ACAGAAAGCAGATTGGTGGTTGCTGGGGGCTGGAGGAAGGAAGGAATGGAGAGTATCTGC
 TTAATGGGATGGGGTTTCTTTTAGAGGAGAACATTTTTTTGGAACTTTAAATAAAGGTG
 GTGGTTATGCAACATTGTTAAACAATACTAAGTGGCACTGAACTTCTCACTTTAAATAGT
 TAATTTTATGTTATGTGAAGTTTACCTCAATAAAAAAATCTTAAAAAAAACCTCANTG
 ATATCCAACCATTAATAAATAAGTTACATAGCTCGTATATAATCAACTTACTTATTAC
 TGCATATGAGGGGCCCCAGATATGTAAGACAGAAGTCCCAACC

Sequence 585

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAACATCCTTTCAA
 ATATTCTTTCTTTATTCTCCAATTCACTTTTACAGGAGAATAGATAACCTCAATCATATTG
 ATTCTCAGCCTAATGGTCTCCCTTACATAAATTATAATGACATAAGCATTTTGTATCACT
 TTATTGTTACCATCGACCTCTACAGTTTGGGGGAACCAATCATTCTTTAAACATTAG
 AATGACAACCTCCAGTTGATTTGGCATATTGTATAGGTGAGTGGGGAAAGACTTGTCAAAT
 CCCAGAAAGGGGGCGTGGCACCAGCACCACCAACCAGAAAGAAAAATCTCTTTTGGTG
 TAGTGTCTAGCTCCCTATCTGTTCCGCTAACCCATTAAATGATGTGGTGGAGGAGGATC
 CTTTCACAATCTTTGTTTCAATTTTTTACAGAGCAATGGGAAGTNTTACCTAACCTTTTAC
 NAAATTCATTTTTTGGGT

Sequence 586

NCGGGGGGGGCGGGCCGCCGGGCGGGTCTTNAAAAANTNGAGGAANTNTTAAATGGNT
 CCCANTAGGGCNNTTNAANCTNCAANC GGCTTTCTTNTTNAATTNNAANGCTAATNCT
 CTNGCAAATCCAATAAAATCGGNCNTTNTATNCATTCCNGCTTTATATTTTATATTT
 NAAANGANGCCNCCNGTAAATNCTATTTTNTTGGCAAAATACCAAAAGGNCAAAAAAC
 CTTTAAAAATTNCNGTAAANCATAANGTAGTTCTNAGGGGGAAANGTTATCATTTCCCAAN
 GTCCTNGNGTNGTTTCTTCTTAAT

Sequence 587

CCGGGCAGGTACTACTTTGAGGGCATTAAACAGACCTTTGGCTATGGCAGCACGCTTATT
 TTAGGGCCAGCGGCAGGGGACTCCAGCCTGCTGGACACTTCAGTCCAGCTCTCTCTGAC
 TGGGGCTTGGGACTCACAGGATTGCATCGTCCAGCTGCTAACTTGGGGCCGGGGCCCT
 CCCTTCCACATATACCTTGGGTTTGTGCATGTTTCTGCTGGGTGGGTTGAGAGGGCAGG
 GGACTCCAGCCTGCTGGACACTTCANTCCAGCTCTCTCCTGACTGGGGCTTGGGACTCAC
 AGGATTGCATCGTCCCANCTGCTAACTTGGGGCCGGGGCC

Sequence 588

CCGGGCAGGTACGTAGTAAGAGAAACATTGCCACAAAATCCTCTTTTAAAGCTCTTTCA
 GGACACTAAATTAAGTCATTTCTGAGATTTTAAAGGCAACAATGTCTCTATTTTC
 AGACTATGTCACAAATGACATAAATGCCAAATTTATAGATCTTAAGAAGACAACACATAA
 AATACAGACTTAGACAAAACAAATGACTAAAGCTGCATAGTTCTGCTAGACTTTATTCAA
 AACTGGCTCTATTCTTAATTATTTGAGAGACCTAAAATCTAGTGTTCAAATGTAATAC
 CCATCATATACTGAAAAGTCATCTTCAAATTTGT

Sequence 589

Table 1

AGGTACCACTGAATCCAAGGCTCTCTTGGGTAGCCTATGTGCCTCTTGGATGGTATGTGA
ACAAGGTAGGGATGAACTGCAGATGTCTGAAAAGAGCTTAAGCATCCTGACAGCTTGCA
TTTTTTTTTAATTTTTTTCCTCACCCTATCCACATACCTATGGCTGGGGAAGGTAA
TGTTACCTCTGCAAACAGATGCTCTGGTAAGAGAAGAAAGACACAGGGAAGGCAGAGAGA
GCAAGACAGAGGGCTCAATCACAAGCTGGGACAAGGAGAGCAGCTGTTTTTCACACATT
CCTGCTCCTCTCTCAGCTGGGCTCATGTTCACTCCGTTTCATTCCAATCATCAG

Sequence 590

CCGGGCAGGTACAGGACAGCCAGCGTCATCATTGCTTTGACTGATGGAGAACTCCATGAA
GATCTCTTTTTCTATTAGAGAGGGAGGCTAATAGGTCTCGAGATCTTGGTGCAATTGTT
TACTGTGTTGGTGTGAAAGATTTCAATGAGACACAGCTGGCCCGGATTGCGGACAGTAAG
GATCATGTGTTTCCCGTGAATGACGGCTTTCAGGCTCTGCAAGGCATCATCCAATCAATT
TTGAAGAAGTCTGTCATCGAAATTCTAGCAGCTGAACCATCCACCATATGTGCAGGAGAG
TCATTTCAAGTTGTCGTGAGAGGAAACGGCTTCCGACATGCCCGCAACGTGGACA

Sequence 591

CCGGGCAGGTACACGGAAATCTGGACAGTGCTCCACAGATTGATACATTAGCCTTTGCTT
TTTCTCTTTCCGATAACCTTGTAACATATTGAAACCTTTTAAGGATGCCAAGAATGCAT
TATTCCACAAAAAACAGCAGACCAACATATAGAGTGTTTAAATAGCATTCTGGGGCAA
ATTCAAACCTCTTGTTGTTCTAGGACTCACATCTGTTTCAGTTTTCTCAGTTGTATATT
GACCACTGTTCTTTATTGCAAAAACATATACCCGATTAGCAGTGTGACGATTTTTTTC
TTCTCATCCTGGAGCGTATTCAAGATCTTCCAATACAAGAAAA

Sequence 592

CCGGGCAGGTACGGTGTGNTGTGCGATGAGCACGATGCAATTCTTCACCAGGGTCTTGGTA
CCAGTGCCCTTTTCAGACAGANTTTGATTGCTCTAGACTTTTTTTTTTTTTAATAGG
GAAAAAANTTGATAATTTTTCTTTTTTCTACATGCACTTAAGACTAAAAACACAGTTT
GGATTAATTTTTATTNTGCTTNCCTTTTTTCCGCNTTTTNTTNNCGCNCGAGNCCTGAA
NGGNAAGATGTTCCAGGGCAGGGGNAACCCACA

Sequence 593

CCGCGGTGGCGGGNCCNCCCGGNNTTNNAAANNNGGGGNNNTNTACATAGAGGTGAGGGT
CATGCCCGTGTTCAGCTCATNCAGTNCAGGGACTTCGCCTTGCCCCACCCATNATGGGT
NAGGCCGGGAAGGGGGCCATTTTGAAGCCAAG

Sequence 594

AGGTACTCTGAAGGTAGGATGTGCAGCTTTTTCTTAGGCAGGATAGATGTAACATAGATG
ACTGCATAAAAAAGAGGGCAGAAAGGGCAGGAAGCCCATTTTTTTTTTAACACTTCTNCA
TTGTGCTCTGCCTCACCCATAATGGCTGGTTTATTCAATTATTCATATATTCGCGTTTG
TGTTTNCANNNAGGTCTACACAGCACCAGCCTACAAAGGCAAGGTCCAATCCGTGTAA
AAAT

Sequence 595

CCGGGCAGGTACCGTCGCCCCGGCTCTCCGCCGCTCTCCNNGGGGTTTCGGGGCACTTGNG
GTCCCCACAGTCTNGGTCTCTGCTTACCTTTCCCTTGACCTGAGTAGTCGCCATGGCAC
AGGTTCTCAGAGGCACTGTGACTGACTTCCCTGGATTTGATGAGCGGGCTGATGCAGAAA
CTCTTCGGAAGGCTATGAAAGGCTTTGGGCACAGATGAGGAGAGCATCCTTGACTTTTGT
TGACATCCCGAAGTAATTGCTTCAAGCNCCAGGAAAATCTTTTGCAAGCTTTTAAAG
AACTNTTGTGTTGGCAGGGGATCNTTNTGGGNTGACCTTGAAATCAAGAAANTAACCTGGG
AAAAATTTG

Sequence 596

GGAGATTATGTCTACTTTGAGAATTCCTCCAGCAACCCATACCTAATAAGAAGGATAGAA
GAACTCAACAAGACTGCAAGTGGCAACCGTGGAAGCAAAAGTAGTATGCTTTTATAGACG
ACGTGATATTTCCAACACACTTATAATGCTCGCANATAAGCATACTAAAGAAATTGAGGA
AGAATCTGAAACAACAGTTGAGGCTGACTTGACCGATAAGCAGAAACATCAGTTGAAACA
TAGGGAACCTTTTTGTACGCCAGTATGAATCTCTGCCCGCAACACATATCAAGGGGAA
A

Sequence 597

CCGGGCAGGTACTCATGGAAAAGGAGTTCCTTGGAATTTTGGAAAATCAAAAAGACCCTC
TGGCTGTGGACAAAATAATGAAGGACCTGGACCAGTGTAGAGATGGCAAAAGTGGGCTTCC
AGAGCTTCTTTCCCTAATTGCGGGCCTCACCATTCATGCAATGACTATTTGTAGTAC
ACCTAGAATCTTTGTGAATAATGTGAGGCCAGTTCCTCCATAAGGAAGGCTGGTTATGGA

Table 1

TATTCATAAGGTTATTTCAAAGTTAATAAGACAAAGTGGCAACTGTAGAAAGTGTGGC
TCCAATCTTGGTCCGTATTTCAAAGC
Sequence 598
NCGGNGGCGGCCGAGGNNNNNNNNNNTGGTTGAGGGGGAGGAAAAACCCGCCACCCNNGC
GGGAGNGCAGNAGCACGACCNCANTTTACNGCAACCGGCAGCNCNCNCANANAGANN
CNCNGCCNCAGCCNCCCAAGNAGCNGGGANNACAGGCANGCGCCANCAACCCANTTAA
NNTTTNTNTTCCCAGGGGNGAGGGGGCCCCACCAAGAAGGCCAGAATGNANNTGNNCCCC
NGACCGCAAGGGANACACCCACCNCAGCCNCCCAAAGGGCNGGGANNACAGGNGNGAGCC
ACCGNGC
Sequence 599
CCGGGCAGGTACAAAGCTATAAAGGAACGTTTTTAGAGAAAGCACTGAAGACACACATTT
TGCTGACCTAAAAGATTTTAAATGAATTAGAATAATTTACATCATATAAAGAGGTATTT
AGTCTTTAAGTGAGAAAAGT
Sequence 600
NGNGGCGGCCGAGGNACNNCANAANTNNNTTCGGGGGNCANAAAAACCCCCACNCCCC
NNNCNAGGACACCCNCGNGGAAGTTTTTNAAGGCCNCAGGGGGGGGGACCCANAAAGNG
AAGNAGCCGNCNCNNCCAAGGGCCNCCAANANGNCCGANGNGANGGCGAGCNGCNCNTNAA
GANGANTNNNTNTNNNGCGGGGNAACGNCCCCNANAAAAAGAGGGACCCGANGCNCNC
CCGCCCCGGCGGAAGCACGAGGAGNCCNGNCCCAACGNCCACGGNCCCGCNACNGNGN
CCAACAANGNNGNNNNANCCGANNNCAGCANACAGGGANCNGCAGNCCAACGNGGAGCACC
NGA
Sequence 601
CCGGGCAGGTACTGGTCTACAGGGACAAGCAGTCTTTAAAACGAAACTCACCTTCAGACC
TCACTCTACGGACAGTGCCACACATAGAAAGATGACTCTGTCACTTGAGATAGGTGTTT
AAAGACACATGAAGATTAGAATCTTGCCAATGGCTGGTCTGACCCCTGAATGCCAACGCA
CAGAAATGATTAAGAAAGAAAGAACGTTTGAGGGCTTCCATACGTAGGGAATCTCAGC
AGCGCCGAATGAGAGAGAAACAGCACCGCGGGGGCTGAGCGCCAGTTACCTGGAACCTG
ATCGATACGATGAGGAGGAGGAAGCGGAGGAGTCCATCAGCTTGGCTGCCATTAAAA
Sequence 602
AACNCCACCGCGGAGGCGGCCGAGGTACTGCATCAGTCGTGAGGAGGAGGGAAAAACCTT
GGGATTGNAAGACTATTAAGATCCTAGNAAGTCNNNTGGTAGNTNACNGGGATGNGACCAT
NGAAGANCCCCCGNNGNCACTAATCACACAAATAACAANNNGAGAAGNAGGCTATAAA
ACAAATTNAGGNTGCTNTTTTCNANNNGGGAANAAACCAAAAAACAGAAAGANGN
GAATCCCCCCCAGNNANGGGGAAAGGNAAGCAACACCAANAAAAAGCCCA
Sequence 603
AGGTACACGCACAGGAGCCGTCCTTCTTGTATGCAGGCGAAGAACTTGGCCTGGTGC
CCGTTGATGTTCTTNTGTGACCCANTCCATCCAGAGGCACTCGTCCGGGGAGGAGATG
TAGCACCGGGATCATGGGGCAGCTCGTGATCTTGCACTCGCAGCCCATNTGGTACCTGCC
CGGGCGGGCCGACCGGGCAGGTACTTACTTTCCCATAGGAAGACAGACCATAGGCAAACT
CTGTTTTGGGATCTNAACTCCATCACCTTTGTTCAATATTTTTTTCTCTCTTGAACA
AAACTGAGATAATTAN
Sequence 604
CCGGGCAGGTACAGGCACAGCATATATTTGAGAAAACATCTTACAAATTTCAATTTACTAT
AGGTTTCTCAATAATCTTTACATTTAATCAATGAGAAAAGTGATTCACTCTCTTGAATTT
TAAGTTAAAAAATTAAGATTTTCCAGGGACTCTTAAAGCTCTCTCCAAAGTATAA
AATATTATGTACTGTGGGGTCAGATTCAGCATACTTGAGGGAACGAAAGACTTTTCGTTG
GGGCGTGACCCGTTTGATGTTTGGATGATCTTCAAGTGTTAGCAGCCCCGCTTCTGTTT
TTCCTTTATCTGAA
Sequence 605
AGGTACAGACATTTTCAAAGTTGCCAGTGTTACTTTAATTGGACTGCCTTCGTAATTCAT
TGCCTCTGCTTCAACAATGTGCAACTCATCCTTTGCACCAGCCCCCTAAACTGACCGTTCT
TAAAGATAACTGGTGCTCATTTTCATCATTATCCACCTTAAAGTGATAATCTTTGTCGGC
CTTTAGTTTCAACCGAAAAAGATAGTTCTGGGGCCTCAGGGGGCTCATGTCCATGTCCAT
CACAGAATTCCTTAATATAAATACGAACGGATGGGGATAAATAATTTAAACTTAGAT
TATTCAATGCTTGCAAAAAA
Sequence 606

Table 1

CCGGGCAGGTACATATGATCCTTAGCCACCAGGGGCACAAGCTTACCAGTAGACAATACAG
ACAGAGCTTTTGTGAGCTGTAAGTGAAGTATGGAATAGCTTCTTTGATGTACCTCGGCC
GCCCGGGCAGGTACCTTAACATTCACATGGAAGTAGTAAAAATAAGATTCTGGGTGCAGT
TCTCCAATGACAGGAAAAAACAAGAGAATTTGAAGAATACCGTCAGAGACAAATACA
TTACAACCAAAATTGACTTCAAGGCACCTTTGAAGGAGATCAAATTTATAACAAAAATAT
TTAGTGAAAGTGAAAGCTT

Sequence 607

CCGGGCAGGTACCTGGACCTGCTGTCCCAGCCCTGCCGCGCTGTTTACATCTTTGCCAAG
AAGAACGACATTCCTTCGAGCTGCGCATCGTGATCTGATTAAGGTCAGCACTTAAGC
GATGCCTTTGCCAGGTGAACCCCTCAAGAAGGTGCCAGCCTTGAAGGACGGGGACTTC
ACCTTGACGGAGAGTGTGGCCATCCTGCTCTACCTGACGCGCAAAATATAAGTCCCTGAC
TACTGGTGCGGCGCACCTTCAGGGTCTTGAGATTGAGCTGCAGTCACAGCTGAGCATGA
AAGCTGCCTTGAAGACACACTGGC

Sequence 608

CCACCGCGGTGGCGGCCGAGGTACCCAGGATGNTTTCTGGCAGGAGGGAGCNTGTGTTCC
TGTGACCTGTGACCCACCTCCACCAAAATTNCATGGGCTCTACCAGTGTACCTGCCCGGA
CTTCCTCTCCTACCTACAGTCCCTGCTCCTATTCCCACCTCAGCAACTGAAGCCGCCCCC
AGAGCTCTGCCTTGAGGATATAAACACATTTAAATTACTGTCATATGCTTCTATTGCAT
TGAGCATGGTGATCTGGAGCTAGCAGCAAAGTTTGTCAATCAGCTGAAGGGGAATCCAG
ACGAGTGGCACAGGACTGGCTGAAGGAAGCCCGAATGACCTAGAAACGAAACAGATAG

Sequence 609

AGGTATTAACACATGATGGAAGATCATTGTGACGCCAATGAATTTTATTGAGTATAAAC
TCATCTACTTCAAATTTATTTATAAGACAACCTAAGATACTCAAGATAATTATTTAATG
GTTAGCTCTTAAGTTGAATTGGTCTACATAATGCGTGGGAAGAAAACCAGATTTTAGCC
TTCTTGCCAAATCCAGACCTCTGGTTGATTTTCTTTGACAGAAGATGCAAGTTATTTTC
CAATTTACAATTAATGTATTTAACATGAACATTATTTTGCTTTAAAACTATAAACAT
TGTAGGAGAATTATAGCCAGTCTTCAGTTATAACCACT

Sequence 610

AGGTACTTCGAGGTCTTCGGCGAGATCGAGGAGGCGGTGGTCATCACCGACCGGCAGAGC
GGCAAGTCCCGGGGCTATGGATTTGTACCATGGCTGACCGGGCTGCTGCCGAAAGGGCC
TGCAAGGATCCCAATCCCATCATTGATGGCAGAAAGGCCAACGTGAACCTGGCATACTTA
GGAGCAAAACCAAGGATCATGCAACCAGGTTTTGCCTTTGGTGTTCAACAACTTCATTCA
GCCCTTATACAAAGACCTTTCCG

Sequence 611

AGGTTTTGCAGCTCGTGCCATCATTTTCAGAGCTGGTGAGCATTTTCAGAACTAGCTCAACC
ACTAGAAAGTGGCACCCATTTTCTCTCTTCTTCTTGTCTTCAGCAGTTAGCTAAATT
ACAAGATCGAGAATGGTTAACAGAACTTTTCAACAAAGCAAGGTCAATATGCAGAAAAT
GCTCCCAGGTAAGAGAATGCTGACTTGTTTGTGTTTTTTAATATTATATCTAGAGA
TTTCAGGTACCTGCCCG

Sequence 612

CCGGGCAGGTACANATGNGNNGTGTCTNNCAACTTTTCATNAGAAAANGCCATATCTATAC
CATATTTTATTCGGAGTCACTGANGATGTAATGATATATCTTTTTCATTATTATAGCAGA
ATATTTTATGGCANGATATTTAGANGNCTTGANCATNCCTATTAATAANTGCCAAACA
CCAAATATGAATTTTNTGATGTGCNN

Sequence 613

AGGTACAGAACTTGGTCATAATATCTTGCATTTTATAGATTTATTAAGATTAGTTTCAA
GTTACATTGCTATTCAGTTGTAAACCGAATGGATGGGAGGGGAGAAAATATAAGCTCT
CCACACAGGTATGCTCCTCTCTTTTCTGAGAGAGAAGGCATGGGATTTTCAGCATAAATT
CCATGTTATGTAGTGCTGTTTGAGTTCTGAAGTTCTATCAATATCTGTTCTGCAAGT
GATCTCTGTAAGACCACCTTACATGCTGGTCTTAGTTATTGTTAAAATTGAAGGTTTCT
TCACACCTCTTTGATAAGAAGTGTAGCTGGCAGAGC

Sequence 614

CCGGGCAGGTACCTCTTGAGTGTCCCTTGAATTGGTAACCGGTTTGTGTCATTATTTTC
TAAGCGAATATGCCGTAATTGGTTATTGGGAACATCTTTGACAAAGATCCATTTAACTTC
AAATTTGCCCTTCCACTTATCCTGAGACCAGACACCAGCATACGCATTATAGTCCACAAC
AGACTTCATTTAGCCACTCCACAAAAATGTCCACTGCCATTACACTGAAGAGTAAATA

Table 1

GAGTGGGCGCTTTCCCATTCAGGGAACGGTAAGCTGCATCCAAACGCTTATTACCATGCTC
AGTACCT

Sequence 615

CCGGGCAGGTACTTTTGATTGTGCACGCTTTTAAATAGAGAGCAGAGTTGCCACTTGAA
ACTACTCTCTTGCATGGGATATTTCAAGCTGTTTTACTATGGGCAAGGAGCAGGGACCAA
AATGCTGCCAGGGCTTAAAAAGAGCCGTGATCAGATTAAACAGAAGTTGGAGAAGTGGAG
GGATGTGGGCCACACACGAGAAGAAATTCAGGAAGTAAGAAGTAAGAGTGACCCTATTAT
GCTTCTCAAGGACAGGATGGTGAACAGCAATCTTGCCAGTGTGGGAAGAACTAAAGGAAA
TTGATGTGGAAGTGAGGAAGGAGATTGAGGATGCTGCCAGTTTGCCAC

Sequence 616

CCGGGCAGGTACATGTACATTATAAAAAAAAAAGTTCAACTAGTATGAAAGGGTTATAAA
GTAACAGAAAAAAAAAAAAAAAAAAAAAAAAAGGANTTAATCACAGTGGAAGCTTGCACGG
TGGGCCACG

Sequence 617

CCGGGCAGGTACAAATGTGAAGAAAGCTTTGTGAAAATTCCTGGCGAGAAGGACTCAGTG
ATCTGCCTTAAGGGCAGTCAATGGTCAGATATTGAAGAGTTCTGCAATCGTAGCTGCGAG
GTGCCAACAAAGGCTAAATTCGCATCCCTCAAACAGCCTTATATCACTCAGAATTATTTT
CCAGTCGGTACCTCGGCCGCCCCGGGCAGGTACCCAAGGGATGTTTCCAAGCTTCTTGATC
TTTAATCTTTTAGCAACCTTCTGATACTGGATTACCTTCCTAGGTGTGGTGCCCTCCTT
CTGGAATTTAGATCTCTGGGGCAAACCCTGTCAGGAT

Sequence 618

CCGGGCAGGTACCCTGTGGCAAATTAAGTCACTGGTAATGAGAAAGATATCACTGAAAGC
CTCAAGTGCCTGAGAAACAGTTTACTCATCCATGGGATCTCGCCAATTGTGAGGAAACAG
CTCAATGGCCATTTCCAGTTATAAGCAGCTTATTTTTACTGATTGGACCTGGTTACCTAT
CATTTCTAAAAATAACTTCTGATACAATTTGTACTTCCAATTTATAATGAATACTTTCTT
AGATTTTAGGTAGGAGGGGAGCAGAGGAATTATGAACTGGGGTAAACCCATTTTGAATAT
TAGCATTGCCAATATCCTGTATTCTTGNTTTACAT

Sequence 619

GGCGGCCGAGGTACTCAANACATCTTTCAATAAAATGGGGNTCGGCTTCTCTGGAGTCA
CGGACAGTTGTTAAGGGCACCCCAAAANAGTTACTCTNCCAGGTTGCCTTTGNGGTGGAT
GGCCGGNGTTTGGGCTTTGGTTTATTAGNGTTCCTCCTTAGGCTGCCAAGAATATTCTC
NCTCCGAGGGTCTTCGNCTGTTTCGTATGGAATGACAGCATTGTCCCCTTTATAACCCGT
GGATGCCTGATCCTNCTCTTTCTTNCGGATGGGCCCCAGCTCATCATCACTCC

Sequence 620

ACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCCGGGCAGGTACTGAACAAAG
GCATAGCCCTTGTGCACAGAACAGCCGGCCACACGGCCATACTTAGAGAAGATGGTCTCC
ACATCTGATTTCTTCACCAGAGCTGTGTTGAGGTTTCCAATGAAGACTCGAGAGTTGATG
GACTTGGGGTCATTCTTGTTGGTTACATTGCTTGCCCTGAAGCTTCAAGGACATGGTGCCC
ACTTAACAAACATTTCTTGAGTGTCTCTCTGTGCTGGCACTGTGGAGATGCTGGGAAA
CACCGTGCTACCAAGTCTTCTGCTCTACTTGCTTTTCAAGAAGCCCCCTCTCTGGGAACC
AGTAACAATGATGAGCTTAGCCAGCTGTTTCCTCCT

Sequence 621

TTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTAAACAAANAGTTTGATTTTATTGATATTNAAATAT
ATNAAATNTTTCAGTGAANACATGGTTNACCATCCTCCCCACCCCCACAGGGGTTACN
TTNTAAACCAAAGCCNCGGCCTCCACCTNCTGACTNCTTTACCAACTGGGNGAGGAA
AGGGACAATGGTNCCCANGGGAAGGGCATGGNTGGCNCTNNGGNACCTGCCCGGGCGGC
CGNTTTAAAACTAGGGGATCC

Sequence 622

CGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGAGAGCACA
ATTGGAGCGGCCTTCTCACACAGACTGTCTGCCTGGATGACACAACAGTCAAGTTTGAG
ATCTGGGACACAGCTGGACAGGAGCGGTATCACAGCCTGGCCCCCATGTACCTGCCCG

Sequence 623

CCGCGGTGGCGGCCGAGGTACATTATATAAGGGATTTTTTTTAAAGTTGAAAACAACCTTC
TTTTCTTTTTGTATGATGGTTTTTTAAACACAGTCATTAAAAATGTTTATAAATCATAAAA
AAAAAAAAAAAAAAAAAAAAAAAAANAGGGGGGGACCTGCCCGGACCTGCCCN

Table 1

Sequence 624

CCGCGGTGGCGGCCGAGGT
TTTTNNNNAAAAANNNNTTTTTTNNTTNNGGGGGGGGNGNCAAAAAAAAAAAAA
NNNNCCCCCNAAAAAGNTTTTTTTANNGGGNCCCCNAAAAAANNCNGGTNNTTTT
TTNNGGGGNAAAAANCNNNTCCCCCCTNNNTTTTTTTTTTTTTTTTTTTTTTTTT

Sequence 625

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACGGC>NNNAATGACA
ACACTTAATTCCAGCTATACNGGGCAAAAGATGTTATGGNAGGGAANAGAGAGGTTNAAA
TACANATGAAATAAAGGGTCACCATCTCCTCA

Sequence 626

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACAAAAAA
AACATTGGTATCAATAATTTGGTGTGTCATTCATTTATTCAGTCAACAAATATTTAGCT
GAGCACTGGCTAGCIGCCAGGATGTGCTACTAAGGACCCAAAGATGGAAGAGATGATGTCC
TCGCCCTCATGGAGCTTGCAGTCGTGTTGAGCAGACTGTCAACAGCAGTTTAGGTAAGGCA
ATGTGACCAGTGCTATGATACAAACAGGATGCTACAAGAGTACCT

Sequence 627

GGGCGAATGGACTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACATTTGAGCAGCGGAAG
AAGGAGGAAGAGGAGCTGGTTGCCTTGAAGGAGCGCATTGAGCGGCGCCGGTCAGAGAGA
GCCGAGCAACAGGCCGCTTNAGAAGTGAAGAAGAACCGCGCAACGTCAGGCTAAGCTGGCGG
AAGGAAGAATGAGGAAGGAAGGAAGGAGGNCNCAATGAAGCCGGTGCAAGAGGATTGA
TGCCAAGAAAAAAGAAAGGGTGCTTGTCCAACATGGGNGGGGCCCTATTTTGGGCGCGCT
ACCCNTNGGTTCAAGNGCAGTAACCAAGTAAAGCCNTGGNTAAAGGCGGTCAAGACCGGGGG
GCCGGGTAGATTNAAAGGGTGCCGCATTCCCTTCTTTCCCGGAGCCGTTAANNAAGCCC
TCTGGGACCATTTTGACTTACCATTGGGGGGGAAGGGAAAAACCAGGCTTTCNCGGGGG
ANGAAAAAGCCCCAAG

Sequence 628

GAACCGCCAGGAGCCAGAAGGCGAGCTTGGCGAGTTTTGTGNGCTTTTGACCTGCCCGGG
CGGCCGAGGTACTTGTATCAACACATTTGTATCAGAGTTGCTTTTCTAATCTTGTTAA
CTGCTTATTCTAGGTCTGTAATTTATTAAGTGGCTACTGGGGAAATTTACCTNAATTTT
CTGGATCTAATCTGNNATTTTTTCATTNAACCTCCA

Sequence 629

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGNACCANNTNCTTNTTNG
AGNNNCNTACNAGNTGTACNNATCGCNGNNCNTAAAGANNNTCCCNACCACNTCCNTT
NGCCTNTTTATTNGNATTGTNGAACANTCTNNNNNTNGANCTNTTACATTGAATCA
TCTNGNCNANTTATCCNANNCTTNACTGACTCANACTCNTTTATGCTGAACNTNTNAATN
CAAAATCNCTATTGCTTTAGGACTCTGGGAAGCNGNTGATAAAAAAGATAACACGAGCTAC
TGATATGGGCAGGANATGTTTNTCTAANCAAATTGGAGAAATATAAACATGAAATGTGGCA
ATGATCC

Sequence 630

CCGCGGTGGCGGCCGAGGTGCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNC AAAAT
TAGCATTTTATTCAAACGCTGGGGTCAGAGNGTATNATTTATATTCNGGNNNGGAATNG
TATTNACCTTTNATAATTATTATTAGNGGGGGTATGGCTAANGAGTTCTGATTCACCCAC
GAAGGTACATTTATGCTGAATACATTNGNAAATNCTCAGTTTTATNCNGNATGTATATG
ATGGCTACTCTAAAGGTTNGGATATGTATNGNAATTAGAATTGTNGGCATGATNACAT
TTCATTNGNGCCAAAAATATTAAAAANG

Sequence 631

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCAGTTGAAATTTCCAG
TAAAGCCTGCTGATCTTAAGAAGAGAATAGAATCTTTAATTGACCGGGACTACATGAAA
GAGATAAAGAAAATCCAAACCGTAGGCTGGAAGAGGATGTGGGCGCCGCCAGCTTTA
GCACCAAGTTGGTGAGGAGTTGAGACCTACTTCACAGTAGTTCTGTGGACAATCACAATG
GGAATCCAAGGAGAGCTGTGCTGTTTCGGGCTGCTGCTGCTGCTGGCTGTCTTCTGCCAT
TCAGGTCAATAGCCTGCAGTGCTACAACCTGTCCTAACCCAACCTGCTGACTGCAAAACAGCC
GTCAATTGTTTATCTGATTTTGATGCCGTGCTCATTACCAAAGCTGGGTTACAAGGTGT
ATAACAAGTGTTGGNAGGTTTGAGCATTTGCAATTTAACGACCGTTCACAACCCGCTTGAG
GAAAAATGAGCTTAACCGTACCTTGCC

Sequence 632

Sequence 633

Sequence 634

Sequence 635

Sequence 636

Sequence 637

Sequence 638

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Table 1

AGAGGGGGATATGATANGTTTTCGCAAGGGTNTGCACACAACTGCCAAATNTGGGNGAA
AAGNTTGGCCTAACAANTTTTTCNGAANATTTTGTCCCTGNCCGGGNGGGCCNTTTTAA
AACTAGGGGGGGCCCCCGGGGCGNGGNGNAATTTTNAANANAAANTTTTANNNGNCCC
CCCNCCCCCTNNGGG

Sequence 639

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAAAAAGAGCTAGGGCGCG
CCCGGGCAGGTGTCTTGCGCCACCATGCTGGCTAATTTTGTATTTAGTAAAGATGG
GTTTTCGCCATGTTGGCCAGGCTGGTCTCAAACCTCCTGCCTCAAGTGATGCACCTGCCT
CAGCCTTCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCCGGCCAAAGTCAGCTT
TCAAAATCCAAGCCATAATTGGTGAGGGGGGAGTTTCAGAATTACATATAAAAAATTAATA
TTTGAAAAAATAATTCTGAAATTTTGAATTTAAAAACAGATGTGCTGCTTCTGGGTGTAG
GTAGTAAAGTNTAGGAAAAGGAAGTGTTCCTTAGAAGCGGACTGTGGAANGCCTTAT
GTAGANTGTCAAAGGGCANCANGAGCCCGNGTTTTTAAATGGCATTACTGTACCCTTCGG
CCGGTTCTAGANCTTTTGTGNAANACCCCTTTACNTNCCCNAAATTTTNATTNTNAAAGGCT
TTNTCGANTCCCTCNTANTTCGNGGGGGGGGGGCC

Sequence 640

GGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCGAGAAAAGAGCTAGGGTAGGC
AACTAAAACCTACACAGTGCCAGTCTCAGGAGGTCACTAGCTCACAGAACTCAACAGATA
AACTGGATTAAACCTTAAAGTCTTCTTTCTATTTGAGCCCATATGACTATTTTGAACA
TGGCTCTTTTGTCTGCTGCCTATATATAAATTTTTTATTAATTTTCTTGATTGGGAAGAT
CTTGAATACGCTCCAGGATGAGAAGAAAAATACGCTGACACTGCTAAATCGGGTATATG
TTTTTGCAATAAAGAACTGGTCAATATACAACCTGAGGAAAAACTGAAACAGATGTGAG
TCCTAGAACCACAAGAGTTTGAATTTGCCAGAAATGCTATTTTAAACACTCTATATGGT
TGGNCTGCTGTTTTTTTGNNGGAATAATGCATTCTTGGCATTCTTAAAA

Sequence 641

ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACCTCAGGGGTGGTCTGT
GGAAGCCTTAAACTCTCCACACTCAGAGTCCTTTGTTTCCCAGAGGCTGTTGCAGAACC
TCCTCAGCCAACGGCAGGTATGTCTCCCTGCAACACAGCTGTTGTACCTGCCCG

Sequence 642

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGNACAAGCTNTNT
TTTTTNTTTTTTTTTTTTTTTCGGAACCGTACCAGAAAATTTTATTAATAAATTAATA
CTATT

Sequence 643

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTCAACATGCTAGA
GGTCCAGCATTTTCAAAATACGCCATGCAGTTACATGAGGACTGCTACAAATTTTGGAGC
AATGGCCATCAGCTCTGTGAGGAGAGGAGTTTAACTGATCAACACTGTGTGCACAAATTT
CACTCATTACCTAAATCAGGAGAAAAACCAGAGGCTGATAGAAATCCGCCTGTGCTATAT
CACAATAGCCGAGCTCGATCTACTGGTGTGCAACTGTGGAAGGAAACAAGCACCTCGA
GATGATCCCTTTGATATCAAAGCAGCCAATTATGACTTCTATCAGCTTCTGGAAGAAAAG
TGTTGTGGAATAATTGGATCATATCAATTTCCAGTATTTGAACCAAGTACCTGCCCG

Sequence 644

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGGTACTTCAGGGCTGT
GAGGAAGGGGTGCCTGGAGTTCTGCAGGACGCGGTTCTCGGTGAGTGTGTGGGCCACCTC
GTCCTTGGCCACGATGACTTCTTCTTGAGGATCTTCATGGCCGTAAGTAGCGGCCTGTG
GCCTTCTCCTTACCAGGATCACCTTGCCGAAAGTGCCCTTGCCAGCAGCTTCAGGTAC
CACTCTTCCAACCTCTGAAGGAAGCTGGCTGTGCCCGTTGACTCTGACACCTTTCGAGTC
GCCAGTTTGCAAAGCCGCTCAACAAAGCCAGGAATGCTGAGAAGGGCCGCTTGATTGATT
TCAGCTGCAGAAGGCCCAAACCTCAAGCTCTTCTTCTGTTGAGCATTTTGGCAAGAAGC
GTGTGCTTGTATCATTCCTGTATCCATCTCTGAAAATGGTGACAGCCAAGAAATCCGGC
AGAAATTAGCGAGCTGCTTGTGATCGAAATTG

Sequence 645

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGAGCAACGCGGAG
GAAACGGGAGTGAACGGAGAGCGTAGTGACCATCATGAGCCTCCTCAACAAGCCCAAGAG
TGAGATGACCCAGAGGAGCTGCAGAAGCGAGAGGAGGAGGAATTTAACACCGGTCCACT
CTCTGTGCTCACACAGTCAGTCAAGAACAATACCCAAGTGCTCATCAACTGCCGCAACAA
TAAGAAACTCCTGGGCCGCTGAAGGCCCTTCGATAGGCACTGCAACATGGTGTGAGAGAA

Table 1

CGTGAAGGAGATGTGGACTGAGGTACCTGCCCGGGCGGCCGAGGTACCTGCAGAAGGCCT
ACAGGGTGCCAGGCACTTCTTTAATGTGTTCTTTCTTTATGTGATTATTTGATTAATCTC
TGCCTCCCCCACTAGGACTGTAAGCTCCCTGAAGGCAAGAATCCTGTGCTTATGCTCAAT
ATTAGCTCNTCCCTTGGCACAGAGTAGGCACCTTCAACAAATGCTCCCCA

Sequence 646

TTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCATCTACAAAGA
CCTCTATTACATAAACTGCTTCTTACAGGAAACAAACCTCTTCTGGGATCTCCTTTTG
TGAAAACCAAGTTTGATGTGCTAAAAGTAAAAAGTCTATTTTCCAGTGTGGTCTTGTTTCCAG
AAGCAGCCAGATTTCCAATGTTGTTTTTCCCTCCACTCAGAAACCCCTGCCCTTTCCCT
TCAGAAAACGATGGCAGGCATTCTCTGAGTTTACAAGCAGAGACTCACTCCAACCCAAA
CTAGCTGGGAGTTCAGAACCATGGTGAATAAAGAAATGTGCATCTGGTCTCTTCTGTTG
TTTTTATTTATATCAGATTAATTTCTTTACCATGTTGGCTAAGTCTAAATATTAGAGA
TGAGGGCTGTGCCTACTCCCTGGCCAGCTCTNCTGATAGCCTATGATGGGGTCCAATGG
GGAAATGACTCTTTACTATTAAGACAAGGGAAGGC

Sequence 647

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGGGATTACAG
GCGTGAGCCACCATGCCTGGCCAGAAATCTATGTTTTCTTAGAACATGTGGAAGAAGGAA
AAAGACAAAAAGGAAGTCTGGATTCTGAGGACCACGTCTCACCAGGGTGACATCAGGA
ATGGGTGCTAGCCTCTGCAACACGACACCCAGTCTGAAGAAGCTCTATACAGGGTACCCT
NGGNCCGTTTTAGAACTTAGGTGGGATCCCCCGGGCTTGCAGGAAATTCGAATATCAAA
GCTTAATCGATACCGTCGAACCTCGAGGGGGGGGCCCGGTANCCAGCTTTTTGTTTCCC
TTTAGGG

Sequence 648

CCGCGGTGGCGGCCGAGGTGTAGGGTGTATCCCTGTGACATTGTCTCTTTAGTTTGCTC
TTTCAAGAGATACTTACAGATGTTGAGATGGCTGCCCTGCATTTCCAGCTAATCTCTTCT
GCTCTAAATATTTAAAACAGTCTTCTCAAACATTTTCATTAGATAGCTTTCTGAAAG
TTCCCTATCCCTCTTTACCATAATTTTTTAAATGTAGCCACATTGTAATAGTAAACTTCA
TATATAATGAGTGCTTCATATTTTTGTTATGGGAAAGCAATATATTATGCAGCCAGTCTG
TAGAAACATTAGATCCCTCTTCCCTTACTCAAATACAGTTTCAAAGGAAGACTCATGA
GAAATTCATAAAATACAANGTTTTTAGATGTTTATGCTTTGCCTTTCTTTTTAAAGGNG
NTTTTCCTGCTNTGGAGNCNCTAACTCTGAAAATTTAAAAATATGTAAACNAAAGGGG
GTTT

Sequence 649

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGCTATACATG
CAAACTCTTAGCACCTGAATTTGTAAACATTTACACGTATCCGTGTATTCAGAATATG
AAGAAAAGGACCATGAAGTTGCACTCATTTTTCTGGACCTCAGTCTATCTCAATAAAAG
ATATTTCTTTTATCTGCAAAAAAGGATTCAAATAATGTTAGAGGCAAAAATGATGACC
CTGACAAGCCATCTTTTAAACGCAAAAGAACTGAAGAACAAGAGTTCTGTGATTTGAATG
ACAGCAAGTGCAAAGGCACAACACTGAAAAAATTATTTATAGATAGCACCTGGAACC
AAACAAACAAAATATTCATGATGAGCGACTTCAAGGGGTTGTTACAAGTTGAGTTGAAA
ACAAGAAAACTTGCTTTTGGCGCCATCAAAAAGGGAAGCCAGATACTTTCCTTTCTAC
AATTGAAGCCAT

Sequence 650

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGAGGGGCTGCTGGA
CAGAGCGGTAGCGATCAATGCACAGGATGAAGACACTGAAAATGGACGCTGTGCTGGCCA
CATAGTCCATGGAAGCCAAAAGAGGCAGAGAGGACGGCCAGTGACCACTTGACCTGCC
CGGN

Sequence 651

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGCTCACTAAAAAGA
TTGAGACCCCCCTCCTAGGACTATAGAACCCTTCTCTCCCTCCATTTTTATCACCACAT
TACTAAAGGCCTGTTTGCAGCAGTTCTCTTAACCTTGTGTGTCATGTCCAGTAATCAAGA
AAAAAATTACAAGACATATTAAAGGCAAGAAAAACAGTTTGACGAGAAAGAGCAAGTAT
CAGAACCAGAGTCAGATATGGCAGGGATGTTAGAATTATACACCAAGTGGGATTTATCCC
AGGTATTCAAGGCTGGTTGAGCATTCTTCAAAAGTCAATTAAGGTAGTCCATCATCACA
TCAGCAGGCTAAAGAAGAAAAATCATGATCATAGCAGTAGATGCAGAAAAAGCATTTGAC
AAAACTAACACCCCACTTATGATCTCAGCAAACTAGGAAGAGAGGGGAACATCCTCACT

Table 1

TGATAAAGGAATATCTACCAAAACACCTATTAGCTAACATCACACTTGATGAAAACT
Sequence 652
TTAGGGCGAATTGGAGCTNACCGCGGTGGCGGCCGCCCGGGCAGGGTACTTTTAGTAGAG
ACAGGGTTTTACCGTGTTAGCCAGGATAGTCTCGATCTCCTGACCTCGTGAGCCGCCTGC
CTCGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGTGCCTGGCCACGTCCCTA
TTTTAGAAATGAGAGGAGTGA CTGCACATAGGAAAAATGCCACTTTTAGCAATTCAAAGT
GGAAAAACTTCTTTTATATAAAAAATTATCCCAACTCCACCCCTTGGCTCTCAGTGTTC
ATCTCCACAGAGGTAAAGTTGTGCCATTTCCACGGCTTTAAACAAAGCAAAACAAAA
CCACCAATCCTAATAACCC
Sequence 653
CCGCGGTGGCGGCCGCCCGGNCAGGTACAGAGTTACAGAGCATAATTTTAAACACTTAGT
TGCAGGTATATAAGTATGGTATGTTTCATGGACTGGAGACTTTGCCTGTTCATTTTTAA
ATATTATTTTCAGGTCTTTGCTTACCAAAGGAGGCCAATTTCACTCAAATGTTTTGAG
AACTGTGTTTAAATAACG
Sequence 654
CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCGAGACT
GGGAAGAAAAAGAGGTTTACTTGGACTTACAGTTCCACATGGCTGGGGAGGCCTCAGAA
CATGGCGGGAGGTGAAAGGCACCTTCTACATGGCAGCAAGAGAAAAATGAGGAAGAAGCAA
AAGTGAAACCCCTGATAAGCCATCAGATCTTGTGAAACTTATTCATATCACAAGAATA
GCATGGGAAAGACTGGCCCCCATGATTCAATTACCTCCCTTGGGTCTCTCCACAACAC
GTGGGAATTCTGGTAGATACAATTCAAGTTGAGATTGGGTGGGGACATAGCCAAACCA
TATCACTTACCCCTGGCCCCCTTCAAATCTTATGTCTNACTATTCAAAA
Sequence 655
CTACTATAGGGCGAATTTAGCTCCCCGCGGTGGCGGCCGAGGTACACGGAGCTTGAAGCC
GAAAAGGGTGAGGATCACTTCTACAGAGAAGGAGCCTCGGTCCACAAAGTCACCATTTAA
TATATAGGGGTGGTCTCCGAGGGTAAACCGTTGAGCTCGAATATGTTGAGGAGGTCATA
GAACTGGCCATGGGTGTCCCCACATACTGTAATCTTCTGTCTCTTTGAGTGTGGTTTC
CACGAGCGTGCTCAGCTTGGAGAGGACCTCTTTGACCTGTACTGAGTTTTATTATCCCA
ATAATAATGGTCTGGAACCTCAGGAGGATCATAGTAAACCTCCAGTGAAGGTTAAATTC
AGGCCTGTTGATTTTTCTTCGTTTTATGTTTTCCAGCAAGGATATCATAAGGACCAACT
AAT
Sequence 656
ACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGNCAAGGTACTCTCCAC
TGGAACCTGAGGACCACTGAGGCACCATATTGGGGATTTAGGGTGGGCTGGGCACTG
CA
Sequence 657
CCGCGGTGGCGGCCGCCCGGGCAGGTACAGAAGTGGGAACAACACTTGGTTAGTCTCTT
TTAAGTTACAAAAAGCCAATTGATGTTTTCTATTCTTTTTAAATTTTAAATATTTGTTA
TAAATACTCACAGGATACCTTATTTCCCTAGCTATCATCTCCTGACTTAATGTTTTTAA
ACCCACCAATATAAATTTAATTAAAGATATATGTTGTAAGAAAAAGAAAAAAAAAACCC
TTGGCCGCCCGGGCAGGTACTCTTTCCCACTCTGCGGTTCTGCCAAGCACCTTGCTGG
GCACCTGTGTGTGCAAGACTCTACAGTGTGGTGTCTGCTGCTTTTTTTTTTTCTTCT
TC
Sequence 658
AGGTTTTTTTTTTGTCTGAGTCTCTGACGTCCTGCCCAAGNGAACAGCTGCGGCAGCCC
CTCCCAGCCTACCCCTNCTGCGCTGCCCCAGAGCCTGGGAAGGAGGCCGCTATGCANGGG
TANCACTTGNAACAAGGAGAACCACCTTGAAGCTTATTNCCTANCCCNNTNAGCCACCT
TGGGGNGGNTTAANTTACCCTGGGGGGACCCCTTNCCTGCCCNATNGCCNTTCCANTTTA
CAAAAAACAAATCCAAATTTGCNTTTTTTTTTTTTTTGGTTCCCAAAANNTAAAAAACN
CTNAGGCTTTATNCNTCTTGCCCNANNTTTTTANTCNGNANTATTTGTATTCNANAAAGT
NGGGGGGGGGGGGNNACNCNTTGCCCCAGGGACGGGCCNCNTTCTAAGAAACCTAAGAC
GNGAATC
Sequence 659
CACTACTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTAAACAGGAGGAAAAAAATTAATAATATATGTTTGCAC
AGGAGTTCCACGAAATATGAGACTCCAAGAAGGGTCAGATGATTGACACTCATACNCCAT

Table 1

CGTGAGCTATCGAAAAGAACGGCAGTTTGGGAGTTCTGCAGGGAGTTGACCACANAAGTG
GGAGAGTGAAGGGAAGAAGTGTGTCGTGAATAAAGCTTGGCTGGTTTTCANATAAAAGGT
CTTGCCGAGTGGCCAGGTGTGGTGGCTCACTCCTGTCACGTCCCANCACCTTTGGGAGGCC
AAGGCGGGCGGCTCATGAGGTCAGGAGTTTCGAGACCAGCCTGGCCAACATAGTGAAACC
CCGTNTTTACTAAAAATGCAAAAAAT

Sequence 660

CNCTACTT/AGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACTGTCTGG
GCTGGGGGGGACACTGTCCAAGGGAGTGGCCCTATGAGTTTATATTTTAACCACTGCTT
CAAATCTCGATTTCACTTTTTTTTATTTATCCAGTTATATCTACATATCTGTCATCTAAAT
AATGGCTTTCAAACAAAGCAACTGGGTCAATTAACCAGCTCAAAGGGGGTTTAAAAA
AAAAAACAGCCCATCCTTTGAGGCTGATTTTCTTTTTTTAAGTTCTATTTTAAAGC
TATCAAAACAGCGACATAGCCATACATCTGACTGCCTGACATGGACTCCTGCCCACTTGGG
G

Sequence 661

GACTACTATAGGGCAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGCCNCGAGGGGGGTTTNNATTTTCATT
ATTCANACAAANAATTTTNTANAANATCCCGGGNCAAACCGGAAAAATTTGGCAGNCCNAT
NGGGGGGGG

Sequence 662

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACAATTTCAATAATAAATTA
AAAAATGAGTAAAGTAAGTCTGAGAGAAGTTCATAGTCACTATATTACTCAATGACATT
TTTCTGCCTTCATTTCTAAGAGTTCATCTGATCCAAGGTCTGATCATCTTCTTGACAGAA
AACTTGTTTTGACAGCACATTTGAAATGCCGAGTGTTTTGTTATGTCTAAGCAGCAGAG
TGATGTTTTGTTAATAACAGAAACACTTTAAAAAGAATCAATTGCAATCAAGAAGTGTTGA
TGAACATTTGGACAANGNTACTTGGCCCGGGGCGGCCGCCCGGGCAGGTACAGCAAGTT
TTCATGTCTTTTTTAATAAATAGGATTTCTAGGAGTCAGTATATATTTAATACTCTTCT
TCCTTAAGAAATAAGAAGTTTAGGNCCAAGTGTTAAGCTTTATCCTTGACACTGGCCTTA
TCTCACATGGAGGGATTAAGAGGGCC

Sequence 663

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACACGAAGAGAGAAATTC
AACAAAATATTGCTGTTCTTCAGTTTGTGTTGTGGAATTTGAAATTAATCAAAATTTAAAA
TAAATTAATGAGCTGTGGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
GACCGCCCG

Sequence 664

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTTTTCAGTTTCATAT
TACTCTAAATCCATTACAAATCTGCTTAGCTTCTAAATATTTTCATCAATGAGGAAATCCC
AGCCCTACAACCTCGGAACAGTGAAATATTAGTCCAGGGATCCAGTGAGAGACACAGAAG
TGCTAGAAGCCAGTGCTCGTGAAGTAAAGGAGAAAAAGAACAGACAAGGGAACAGTCTGGA
CATGGCATCAGAGATCCACATGACAGGCCAATGTGCCTCATTGAGAACATAATGGGCG
ACTGATGGCGAATCCAGAAGCTCTGGAAGATCCTTTCTGCCATTACACAGCCTATGGTGG
GGGGGTGGCAAATTGTGGCCTCTACCGCACAGGCAAACTCCTACCTGATGAACAAGCTGG
CTGGAAAGAAA

Sequence 665

TAGGGCGAATTGGAGCTCACCGCGGTGGCGGGCCCGCCGGGCAGGGTACACNGTGGATGG
GGCAGTCCGGTCTTNTCTGGGCAGGTGTTGTTTCTNTCGGTAGTGTCCGGCGAGATGACC
TCCTGCTGCTGGGCCTGGATGGCCCCCAGGATCCCAGAGCAGGAGCACGGAGCAGGTG
CCCTGGAGCATCTTGGCAGCACCTGTGCCCCGAAGTCCTGGTCCCCGAGGAGGCACCT

Sequence 666

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTTTTTTTTTTTTTTTTTT
GGCAGTGAGGACTTTATTGGGGAGGGTGACTTTGGCTTCCAGAAAAGAGGGAAGGTGGGG
ACCTAGTAACAATAACCATTTATTCCAAGGAGGCCCTGGCCCTGAACCCGGGGTCCCCAC
AGGAATCAGGGAGGCACCTGAGTCCCCCAGGACCAGGGCATCCAAGGCATCATGGCAGC
TGCGTTGTTCAAAGGAAGTTTCATTGAGCTTCATCTTGGGAGGTGTGAGGGGGAGTGCC
GAGACCGCTGGAGGGCCACGGGGCTGGTGTGGGTGGGCCGTGGAGGTCTGGCCCACTCC
GCACCAGTTCCTGGCAGCGTTCCACAAAGCTGCCCCACCACGGCGCCGGGCCCTTNAAGC
TGCGGGGGGGCTTGGGCTCCACGGTGGCCAGAAAGGGAAGGTGTTNCTGNAGGCTNAGTG

Table 1

GAGGCTG

Sequence 667

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTCCTCCTCGTCCTGCCG
CAGGGCCAGAACCCCTGACGGTATTCAGCTGCGCGTAAGTCTGGCCGGTGCCATCTGTCT
CCGCAATGCCCCCAAGAAACAGGCTCAGGCCGGGGCAGCAAAAAGGCGAAGCAAAAAA
AGAAGGAGAAGATTATCGAAGACAAAACCTTCGGTTTGAAGAATAAGAAAGGAGCAAAGC
AACAGAAGTTTATCAAGGCTGTCACACATCAAGTTAAATTTGGTCAACAAAATCCACGTC
AGGTAGCACAGAGTGAAGCTGAAAAGAAATTGAAGAAGGATGACAAGAAGAAGAAATTGC
AGGAGCTAAATGAGCTGTTCAAACCTTGATGTTGCTGCTCAAAAAAT

Sequence 668

CCGCGGTGGCGGCCGAGGTACCCCTGTTGGTATCTAGGAAGTAAGTCTGCTTTTGAT
TTTACAGGCTCATAGGTGGAAGGGACTTGCCCTGTCTCAGATGAGACTTTGGACTGTGGA
TTTTTGCCTTAATGCTGAAAAGAGTTAAGACTTTGGGGGACTGTTAGGAAGGCATGATTG
GTTTTGAATAGTGAGGACATGAGATTTGGAGGGGCCAGGGGTAGAATGATATGGTTTGGC
TATGTCCCCACCCAAATCTCAACTTGAAATTGTATCTACCAGAATTTCCACGTGTTGTGG
GAGAGACCCAAGGGGAGGTAATTGAATCATGGGGGCCAGTCTTTCCCATGCTATTCTTGT
GATAGTGAATAAAGTTTCACAAGATCTGATGGCTTATCAGGGGGTTTCCACTTTTGCTTC
TTCCTC

Sequence 669

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTTTGGGAATCTAAT
GTATTGTAAGGTATTTTACACGTGCTCTGATTTTGCCACAACCTGGATATTGAAGCTATC
CAAGCTTTTGAAATAAAATTTAAAAACCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

Sequence 670

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACTGGATCTATAG
ATATTTTGAAGTGGACAGGTGGGTATTGAAGTAACCCATCAAAATATGCTCTGCAGTGA
TTCCGCTTAATGTTTAAATTCAGTAACCGTCTTTTTTTTTTTTTTTTTTTTTTTTTTTT
CTTT

Sequence 671

GCTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGCCTGCACCAG
AAGATGTCTGCATTACTCATTGCTAAAAATGTGTAGCACAGAACTGCACTAGGATTAATT
TGTTTACAAGAAGAAATTTAACTCTACGTTTGGTTTTCACATACAGCAGCTCTATTGAA
TAACATGCATCTGAATTTTAAAGTTGCAAAGGTATCTGAATAATTTTCATGTGCATCTTT
TGTCGAATGTTTTGGTTCAAGAAAGAATGTTTAAAGCTTTTTAAAGACTTCAGTTCTTA
ATGTAAGTGTACAAAATTAGTTGTAAAAATAACATAATTTACCAGTAAACCCACTCATA
TAGAAATGTGCAAAGCCTTTTGATATAAAAAGGTTGTACCTGCCCGGGCGGCCGCTCTA
GAACTAG

Sequence 672

AGGTACTGAAGCCAGCCACGCTGCGCCCCGCCCTGCCCGGGCCTTCCTCGTGCCTGGGA
GGTCGTTCTAGGGATGCTCCTGACCTCCGTCTCTTGGACCTAAGATGGAATGTGTCCCA
GCTCAGGGATTGCCTGAACCAAGAGGCCAGGAGCCCCCATGGGCCGCCAGTACCTGCCC
GGGCGGCCCGCCCGGGCAGGTACAAAGTGCTGCAGTAGCCGGTGAGCAAACTCATGTGTGG
CTCCATCTCGGCTCCCTGTTCTTCTCAGGAATCCACACAGCTTCCCAAAGCACTGTTGA
TGCAGGAAATCTAACCTGCCTATTCAGCCCATC

Sequence 673

CCGGGCAGGTACAATAAATCCTACAGGAATAATAACAACAGAAACATATTAACAGTTTCC
TTTGGCAAATTTAACGGAAGTGAATGCTGATGTGAACATAGAAAAATAATTACAAAAAC
ATGAAAAATGGAACTGACATAAAAGTTAAATAAAGGGATATTTCTAACTTTTAGACTG
ATGAAAGAAATGTCTGAGGCCATTAAATGCAAAAAAGAAATACATTCTCTTTAAATTATT
NGTACCT

Sequence 674

AGGTTTTGCTTTTTTTTGA AAAAGGTAAGTTGCTGATTAAGTCTAATTGGAATTGATAAT
TCCATAGTCTTAGATTAAATGAGGATATTTCTCTAGATTTTCTCATGTTATGCCATG
CATTTATATATCTAACCATTAAATTCACACTAAGGATGCTTCACCATATAATAAAGGAG
CAAGATGGAAGCACTTTGAATTTTCTTTCATTGAGAATAACTGTTTTATGTAAGAATCTG
TATTTATAACACCAGATATTAAGATAGGCTTCCATTTTTTAATGCAAGCCACTTACTTAA

Table 1

TCTTGNATTCTTTTC

Sequence 675

AGGTACACTTCTGTCTTCAAACGTGATCTTCTTTGGATGGAATTAAGATGTAACGTGATA
GTTTTAAGATAAATAAATGGGAAGTTGGTCCAACCTAAGATGACAGCAGATATATTACATG
CAGGATTTAATATTTCTAATTCTCTCTTTAAAAAAAAGGATGCTGTTGGATTGGGAAA
AAAAAAGTCAAAAAAGACCCAGATTCATATATAAAAAATGTCCACAATAGGTCGACAA
TGGCAGTAAAAATAAGAGGAAAAAAGTAATCTTTCTGGAACATCATTTTTCAATAACATA
GAAACCTAAGTGCCAGGAAGATTCCTAT

Sequence 676

CCCTTTTCGAGCGGNCGNCCGGGCAGGNACTTTTTNTTTTTGTAACTTTATTTTAAATT
CATGACACCTTCTACTGATCATTAGGATGGCAGGNGNATCGNTAAGAACCCAGGATTATAAG
ATGAACAGGCCCTCAGGTCGTNTNTAACAGCTTAAATCTATGGTAAGAGGCAAGGNAT
TTAATCTCCTTTGCTTCTACGATNATGGCTCANATATGTTTGCTCTGCTCTAAGAAAAAT
GCATCAGAAGACACCTTAGGTTTGGCAGGNAGGGGCTCTGATGTTAACAGGATTGGGTAGA
GAAGCTCTTGATGCTTCTGGAA

Sequence 677

NCCCGGNNNNNNNNNGGGGNNGGGGNNNNNNNNNNNNNNNGGGGGNNNNNNNGGGGGNNNNN
NNNNNNCCCNNNNNNNNNNNNNNNGGCCGAGGTACCATATCAACCAGAGCCAGNCCACCACC
ATTGAAAATAAAGNCCCAGCCAGTNAAGGTGGCCAAATTATCCCACCATTAGGAAACAT
TTTTTCAGGCATTAATGGACCCAATGGAAAAATTTCTCTGGTTGGCC

Sequence 678

AGGTA CTGCTTAAATGAACACAAGATGGTGT CAGGATTC CAAGTTTCTAGTCTTTCTAG
GGAGTTACCTAAGGTCTAAGTTTTATCCTGGACAGAATCTCTTGGGGAAC TAAATGCTA
CCAATGAAAAGCTCTTGATACTCCTACATCATGAATATTATGAGCTCTAAAAC TTGAAC
TGGTCGTGTCAGGAGAACC TTTAACTGCTCATGCCAGTTCTTG TGGACTGAGAGGAAGTA
CGGCTCGG

Sequence 679

[illegible]

Sequence 680

TAGNAACTAGTGGGGATCCCCCGGGGCTGGCCAGGGAATTTCCGGATTATTNCAAAA
GGCCTTTTAATTCGGAATACCCGGTCCGGACCTTCCGGAGGGGGGGGGGGCCCCCGG
GGTAACCCCCAAGCCTTTTTTGGTTCCCCCTTTTAAAGTTGGAGGGGGTTTNA

Sequence 681

AGGTACAACTATTTTCATTATCAGCAAAAATTAACATCGACTGGACCGAGAAATGACTCC
TTTTACAAACGGGGAAAAGAAACGGAGACTCCTGGAGGAAAGCTGCTTCTGCTGGACATG
TTCTCCCGCGTACCTGCCCG

Sequence 682

CCGGGCAGGTACTACTCAGAGAATTTTCATTGCTACTGCCTGTTGTTAACCTAGCAAGTG
AGTAAATTGAGGCTTTAATTAACAAAAAACGGTTGTTGTTCTTTGATATACATTTTGACA
TAGCTCAAGCTTCAACCCTGCCAGTTCCTATGCTCAGACCCCATCTTCAAGGATGCTCC
TCCTGCCTAATCCTATCTCAGAATATTGTTTTTCTTTCCCGTTAATCCCCAGGCTC
AGCTCCTGGGACCAATCTCGTTTCAGGTCCTGTTGCCTGCCTATCCCCACAGCGCTCCA
TAATTTGGTGGTTACGTCATGCACCTGAAGTGGTAGTGAGCATTTATAGTAATAAAAAA

Sequence 683

AGGTACATTTTGAACAATCTACTCTTCAAGTGGATCATTTACAAAAACAAGACATAATTC
CCTGAATCAGTAAATTTTATTTTCATGAAAGGATGACAAAGAAATTCATTTACACTATC
ACGATTTACATTTTCTACAATTCATGCAGCTTTCTTCAATTCACAATCTACAAACCACA
ACAATGCACAAATTTGATGTTAGAGGATACTTTAATGTTTAGTTCTCATCTCAACAGTCA
CTGTTGCTAGTGCTCTCATTTCTCACTCTTCACTGTTACTTAAAGAACAAGAATAAAG
AAGCCAGAAAGAACTAGATCAAGCGATGAGACCAATTTTCAGGGTAAGGCAATAATAA

Sequence 684

AGGTACTACTGGCACTGAGCCAATGTATGCTATCAAGGAAAGCTTTATCTGTCACTGAGC

Table 1

AAAAGGTGAAGTTCAATTAGGTCAAGTTTATCACTTCTTTTCTACACACAACTATGAG
 GAGAGATCATTTCTTTTCTTTTATTTATTTTGTGAGACAGGGTCCCACTC
 TGTCGCCCAGGTTAGAGTACCTGCCCCG
 Sequence 685
 AGGTACCTCCTGCCTTGAGTGATTTAAAGCATTTTAAGATATGCTTTGCTGCCTCTAGAT
 ATTTCTCTGGTTAGATCCCCACAAAGATACTGTAACATTAAGTTCTGGGACCATTGAGA
 ACAAAGTAGCTGCTCACAGATTCTGAAAGAAATGCAAAACCTTTTCTCTGGCCCCAAGT
 ACCTGCCCCG
 Sequence 686
 AGGTACTCTTTTCAAATGCCATATTTGAAATTGCTATTTGCTATTATATGATGCTGT
 GTCCCTTGAGAAAGAGAATACATGGATCTGGCAACCAGGAGTGTGTGTAGGTAGAAGTGGC
 TTCTCTCATCATATACCCAGGGATCCAATGGGAAATGTTTTCTCTGTCCTTTTAACT
 TCAGGTTTTTTTTTCSGGGGGTGGGGGTAGCGGTAGGGGGTTASTGAGGATCTTCTAGCA
 GAGAATACCTTACAAGGATACCACTAAATCTAAAGCTCCAACCTACCTNCTGGNCACTTNG
 GGCTCTNCTGACACTAGNCCAGCNGGCCAAAAAGGNTACTGAACT
 Sequence 687
 AACCCACCGCGGNGGCGGCCGCCCGGGCAGGNACTNCTTGCNNGGGATTAAAAACCCGAC
 AGCAGCAAAACNGCAGAANCNNCAGACNGCAGGNTTGCNGANGGNGAGAGGGAAACNCCCGC
 CCNAAACCCACNGCCACNGAACCNGGCGGNGGAGANACCAGNGGCCNNGGANGCACCANA
 GATGTTTGAGCCNGGNTNCTGGCCAGGGGGNGGCCGCCACCNNANN
 Sequence 688
 CCGGGCAGGTACGCGGGGGGATTGAGAGTGAGAAGGCATAAAGGAGAATCCCCAGCTGAC
 TTGTGCAGTGGTTAATTGAAATTATTCAGGCAAGAGATGATGGTGTCTTGGACCAGGGGA
 TGAGGAAGGCTACAAAATGTGTCTACCTGTATTCTGTGAGGAGAACGTGTTCCCTGGTT
 TAGATACTGTGAAGATGGATCAGGAGAGAGTTTATCTAGACTGTTGGGGAAAGGTGTTGC
 GATTCCTTCAGCTACACAGGATTGAAAGGAGACATTTCTGAAGGGGAAAAAGGAAATGAA
 AANNNNANNNNNNNNNNNNNNGGTACCTCGGCCCGCTCTAGAACTAGTGGATC
 Sequence 689
 AGGTACTGCAAACTAATATTAGTAATAATTTGTTGATATCAGCTTGTGAGCTTTAAAAAG
 CCTGGTCAAACAAGTTTATGTATTATGTTATGCATGCTATGTTTAAATGAATAATTA
 AATTTGAGTAATTATTAGGATTTGGCTGGGACAGGGGATGGATGAGCTTTCTGTTGTAA
 TTTTGCTCTTAGTGAGTAGTAGGTACCTGCCCCG
 Sequence 690
 AGGTACCACTTGTGATGTGTTTAATAAATCTGTGTGGTTTTTACATAGCCCTGAGAGGT
 AAGCAATGAGTCAGGAGTTTCTCCAAGCACCTGTTAAGTGGCATCATATAAATAGCAAT
 GTCAGGAAATCAGGTACCTGCCCCG
 Sequence 691
 CCGGGCAGGTACTGGAATGAAAATACAGGTAAAGCATTTGAAAATTATTTTCTGGCTTA
 GACTGTTTACTGGCTCGATTCTAGCTCTGTCTGGTAAAGGCCTCCAGAACCTTCACCTA
 CTATTATCAAGTCTGGCCTCATAGGGAGGGACTTTTACTGTACCTCGGC
 Sequence 692
 GAATTTCCATCGGTTTGTGAGAGCACAACTTTGCAAAACCCAATGACAGCCGTGCTCT
 CCAGCTGATGACCAAATGTGCGCAGACTGTGATGGAAGAACTAGAGGATATTGTGATCGC
 GTATGGACAGAGTGATGAGTACCTGCCCCG
 Sequence 693
 ATTGGAGCCTCCACTCGCGGTGGCCGGCCGCCCGGGCAGGTACCATAAGAACATTAAAAG
 CTGAAATTCAGGTTGGTCTGCAGCCTGGGCAAGGGGAACAGCTCCTGGCCTCTGAGCCCA
 GCTGGTGGACCACTGGAAAAATGGAATATTTCACTACCTTTTTTTTTTTTTTTTTTTTTT
 TT
 TT
 CATGGTCATAGCTGTTTTCTGTGTGAAATTGGTTATCCCGCTCACAATCTCACACAAC
 ATACGAGCCGNGAGCA
 Sequence 694
 TATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGGCCGCCCGGGCAGGTACAACAAAAG
 TTCATCCTAGTAATTTAAAGCTCTTCAATTCCTATAGAGTTTAGCCTTTGTCAATAGC
 CAAAATATGTGCTTGAAAAATAACTTCTTTGAGTTTCAAAGCAAATGAAAACATAAAACA

Table 1

AGCAAAAAAGGCTTTTTGTTGGTGNTTTTCTCTGCATATCTAGGGTTTGTTCATT
CATAAATACGGTTTTTCAAAAAGCATTGCCTCAGCCAAAATTATGCCCTTTTTAAAAATG
CTTTTCATGTATACACTTTCTACATAACTGCTTTTCTTTACAC

Sequence 695
AGGTACATGAAGGCCCCAGTTCCCCCATGCTAGACACGTCCCCAGAAGCAGCACCTAAT
GGGCAACACTGCGGAATCATTTTCCACCCAGATCAGGGGCATCCCACGGACACTTATTCC
AGAAAAGCTGAAGCTGGGCCACAAAGAAGGCTCCCATCCTTGCTGCTATTTGCCCTGGACC
ACTTCAAAATGTGACACATCGGGCTGCAGTGAGCTGAGATCGTGCCACTGTACCTGCCCG
GGCGGCCG

Sequence 696
CCGCGGTGGCGGCCGAGGTACTGAACATGTTCTAACTCAGATAGTGATGACTGCACAAC
TCTGCGAATACACAAAAAACATCCTCGGAGGGAGTCTGAAGGTATGTAAATTACATCTC
AGTAAAGCTGAAAACTGCTTTGGCTAAAGTGGCTATCCCTCCATGGTGCTGGGACCTGC
CCG

Sequence 697
CCGGGCAGGTACAGTGAACACGCCTGTAAACTATCACTCATATGAAAGAGAGGACAATA
TCGGCGCAGAATACATACTAGCAGATACTGCTTTTTTACTGTGATTTGGAACTTTTGGT
ATTCAAAGTAACCACTAAGGAATATAACTCTAACATGGACAAGGCTTAGATGCATCATGAA
AGTCTGTCATGGGAAAGGTCTGTGGACAGAGGATGTACCT

Sequence 698
AGGTACAAGGCAGCAGAAGCAACAAAGGCTGTGGCCAGCAACGAAGGCAGAGTCCCCGGT
AGGCGGAGGTCCCCGTGCACAGTGTGGTGCAGCAGTGAACCCAGATTTTCCCTTCACAGG
GCAGGGGAACCTATTTCCCTAAAGCATTGGCATTGAGGCCACAAGGGCAGCCATTACTCA
GCACTGCACCTGACCTTGGGAATTTGCTGGGCAAGGAAATGACGTGGCCCTCATCATCGA
TGGCCACACCCTGAAGTACCTGCCCG

Sequence 699
CCGGGCAGGTACTCTAACCTGGGCGACAGAGTGGGACCCTGTCTCAAAAAATAAATAA
ATAAAGAAAAGAAAAGAAATGATCTCTCCTCATAGTTTGTGTGTAGGAAAAGAGTGATA
AAACTGACCTAATTGAACTTCACCTTTTGCTCAGTGACAGATAAAGCTTTCCTTGATAGC
ATACATTGGCTCAGTGCCAGCAGTACCT

Sequence 700
CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCTGAAAAGCCTAGTG
CACTCCAGAAGGCAGGTGGAAGGTGTTGTTTGAAGTGAACCCATTTTATTTTCTCAAG
AAATTCTTGAGCCGATTCTGTGACATGAACATCTAAACAGAGTAACCAGATTCCAATGC
ATGACTCGAATAGGTTTACACATTTTCTTCTGTCCCGCTTTCAAACAAATGGTAAAT
AATTTCATTTCCAGGCCAGTTTAGCATTCCCATTTTTTACCCTGATGAGTCCCATTTTAA
TGAGCAATTTGCTTTATCCAGTAGTGCAATTAGTGAAGTGTTTCTGATTTTATGCGGCAA
GTGTTTAT

Sequence 701
ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTTCTAAAAATGAGTGAACATGGTGAC
TTACCAAAGTGTGATTTGAGTTTCTGACCCCTCTGCATGAAATGTGAACATGAGCTATG
CTGAGATCACAAGTTAAATTTACTTTTGAACCCAGGTATACAGTTGATGGATGTCAAATG
ATAAACGTATGCATAGTGATGAACCGGTCTTTTAAAGTTTATAGGTGTGCATGTTTGTCTTT
TTCTGAACCTGATTCAAATAGTTGTAATTTGTACCTGCCCG

Sequence 702
AGGTACCTGCAATGAAGGAGAGGAGAGGACAGGGAGCCAGATTTCCAAGGACGAGAGGAT
GGATGCGGAGCAGGTTTTCTGTAGCATGTGGAGGAGGGTAGGAGGTGGCATGTGATGACC
TCGTGCTCCAAGAAATAGTGCTCAGTACCTGCCCGGGCGGCCG

Sequence 703
CCGGGCAGGTACATCCTACTCCAAACAGCCTAACAAAGAGTCAATCAAAGGAGTTCCTTG
ACCTGCTACTTGATTTGAGAGTTCTTAAGCAGTTTTCTGTGTGGTTCTAGAATACCCAG
AATGCTGATTTTGGTAGGAGGCTGTGGATATGTACCT

Sequence 704
GCGGTGGCAGGCGAGGTACGTGACAAATGTCATCTAATAACCCTGGGAGGGCTGGGTCCA
CCAGGCTGTCCAGTATCCACCACCCTCTTCTATCCTCAGGGTGCAAAGGCCAATTCAC
TCCCTCTCCCGTTTCTTTTCAATCTTTTCAAGTGTGCTGTATTATGTAGTACCTGCCCG

Table 1

Sequence 705

GCTNATTGGAGCCTCCACCGCGGTGGCGGCCGAGGTACGATGCAAACCAGCAAGCCAGGA
AGCACCTCCTTCCCCTCACCACAGCAGGCCTGAGCAGCAAGGAGCGTCACCGGAGCCCAC
TGGAGAAGCCCCACAACGGNCTNCTCTTCCCCCAGCACCGGGGACTATCAGTACCTGCCC
G

Sequence 706

CCGGGCAGGTACCCTCCAGGCCCTGTGTATTATTAAGATCTTTTAGTAGCGAGTTGCTCT
TTCTCTGGGAAATCGGCTGTAAAGTCAGAGGGAGCTCTTAATAGTTTGCATGGTATTTG
ATTAAATGGAACAGTTGGATCAGTACCT

Sequence 707

ATTGGAGCCTCCACCGCGGTGGCGGCCGCCCGGGCAGGACGCGCTCTCCTTCGAAGTCCG
GAGGAGTTTCTGGATTGTCAGTCTCGTGCAAAGCGGTATATGCTGCAGAGTGTCTCC
TCTGCAGAAAGTCTGAGATAGTGGATGTGGTGAAGAAGCNGGGTGAAGGCCATCACCTCG
CCATCGGGAGACGGNGCCAACGATT

Sequence 708

AGGTACATCTCTAGCTGATGATTCAAAAAGAAACCTTTTAACTCACTCCACTGATCAG
CTATGATACTTAAATGTTTTAGCTGTGAGCAAAATAATATGCATTCTCAAAGAGAGTATC
TTCAGACTCCAGTGGCCGAGAATCTAGAGTTAGCAATGAAAAATTAGTCTCGGGCTTCT
GTTTCTGCCCCACAGTTTTCAAATTAAGAACAATGTGTTTGCACCTAATGAAACAACCTCT
ACTGCTCTTCAAGAGGACTCAGGATACCGATTCTCGAGGCCCTGGCGGTCCCCTGTAAG
TACCTGCCCCG

Sequence 709

AGGTACAGCATCGCTGGTGGTTTTCAAAAAACGTAGTCATTCTCTCACTGCAACAATGTA
AGATAAGCAGAGTAGATCTGTTATTTCCAAATTAAGGTGATTAGATATATGGAGAGAG
AACATGGCATGTGAGGTTTATAGGGCTAGAAACTGCAGAACCATGTAGAACCACATTTA
ACTACAGTACCTGCCCGGGCGGCCGCTCGA

Sequence 710

AGGTACATTTGAGATGGTCTCACGTGAGACATCAATACGGCTTGCTGGGGGGCACAGGTT
TAGGGCAGATGAAACTCACAGGAGGGCGGGTCTGGGTAACTGAGCTAAAGAGCTTTTCA
AGCCACTAGAGCAACANAGCTGCCACAGTTGAGTCAGATTAACCTGGGAAGCCTCCAAG
TGAATTGGNTACCAGCACCACATTACAGATCTCAAAATTTATTGAAACTGATTGAGAGG
NTGGATTTTGATAACTAAGA

Sequence 711

ACCCCTATAGGGCGAATNNTGGNAAAACCGCCCCGGCGGCCGAGGNACCCAAACCTNTN
CATGGNCAAGAGAAAACCNTTTGTGAGGGAAANNTNTTAAANNANGACATGAAATGGA
GACGGANATTAAGAGAAACAAAAGACTCNCNAGACCAGCATGGACAGNACCTGCCCGG
GCGGCGT

Sequence 712

GGGCGAATTGGAGCTCTTCGCGGTGGCGGCCCGAGGACTCAGGATCTGCAGAGGCNAGGC
TGCTTGGCTCCCATCACNGGAGGTTTGCTTNNCAACCCAGAAGGAGCTTTCAAACAAGCC
TAGATATTCCTGCCTGGCCTGCTGCCATTCTCCAAGAAGGCAAGTAGGCACAATAAATTA
GACTGGACGGTAACAGTTACATGTTGCCCTTTAAGAAGTGTTGATATTTTATGGCAAGA
GGTTGTTGTACCTGCCC

Sequence 713

CGAGGTAATCAGGATCTGCAGAGGCCAGGCTGCTTGGCTCCCATCACAGGAGGTTTGCTA
GGCAACCCAGAAGGAGCTTTCAAACAAGCCTAGATATTCCTGCCTGGCCTGCTGCCATTC
TCCAAGAAGGCAAGTAGGCACAATAAATAAGAACTGGACGGTAACAGTTACATGTTGCC
CTTTAAGAAGTGTTGATATTTATGGCAAGAGGTTTGTGTACCTGCCCC

Sequence 714

CCGAATTGGAGCTTTTCGCGNTGGCGNCCGCCGGCAGGTAATGTATGTATGTTGGTAAAA
TGTTGTGAAATTTAATGAGGACTATTTNTGCCATAAGACCTCCGGACAGAATCTATCT
CTGAAAAAGAATTCCCACTCCTAAATAGAGGTCTGTGAGCAACAGATGTGGTAAATGAC
CCTTGTTCAACTGAACCAAGAATATATTGTGATCTGTATGAGGCACAATTCAGAAGAGAG
GGGAGGTGGCTACAGCACAGCCTCAGTGTTGAGTTTGGTTGTGGGGTTTAAACATATTTA
TTTATTTTATAAAGTTTCTCTCATAAGGCACAATGCAATGAGCTTTTAAATTAATCAATC
TAATGTTTACAGAGGATGGTCTTCATGCTGTTTATAAAACAATTTACATTTTATTTGTAG

[illegible]

Table 1

TGATCCCATCACCTTCACAGCCCCAGCCTCTGCTCCAGTCCCTCCCCAGCGAAAAGGGCC
GCCCATGCCATCCTGCTTGCTTGGTGATTGCTTTGTGGTCATGGACTCAGTTGGACATC
ATTATTTTATTAACCGTGTGGTAGGTTTTAACTCAGTTATCCTGGATATCCAAAGGTTT
GTGGTCCATCTTTAGGCTTCCGTTTGTCTTTGGTACCTCGGCnnnnnnnnnnnnnnnn
nnnnnnnnnnnnnnnnnnnnNGAATTNTNATATCAAAGCTTATTCNATACCGTCNAACCTTN
ANGGGGGGGG

Sequence 724

GGCGGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCAGTTAGAGCTTCAATCTCC
AGTGTGATGGTATTAGGGTTAGATCTTCAATCTCCAGTGTGATGGTATCAGGGTTAGAGC
TTCAGCCTCCAGTGTGATGGTATCAGGGTTAGAGCTTTCAGCCTCCAGTGTGATGGTATCG
GGGTAGATCTTCAATCCCCAGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
TTGGGGTTAGAGCTTCAATCTCCAGTCTGATGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
TAATTAGGGTTTAAAGATCATAAGGGGACCTGGTCTGATGGGGATTAAGTAGGCTTATAT
TGAAAGAAGACACAAGAGGG

Sequence 725

AGGTACTTTTTTTTTTTTTTTCACGTGGTCCCAGCTTGAGTTTACTGAGCCTCCTCCAGG
CTCAGATATGTGCTTGCCCTGGAGAACTGNTTCCAAAGGCCAAGCAGCCCTTGCCCTTGG
AGAGCTGCTTTTTGTAACTTACAATAGTGTTCCTCAGAGTGCATNCCATGAAAATATTAG
TTCTTTCAACATGCTGAACAATGAAAGAATCCATGGTCAAATCCTGAGAACNTATTGTCC
CTNTTTTAGAGATTTCATAAGGTACCTGCCCCG

Sequence 726

AGCTCCCCCGCGGTGGCGGCCCGAGGTACAGAACTCCAAAAGAAAATCAGGCCTCATTGC
CAAAGCTCAGGGATAAGTCTAAACAGAAAGGCATTTATACAGCAACAAGAAAGTTACTGG
GGGCTGGGGATGAGGGAGGGCTGGGGTAGAGGATACTAAATATTTTCTGAGGTGCCCA
ACTGCTTGTCTTAGAAGAGGCTAAACTGAGCCAAGCGTCTCTGTTTGTCTCCTCCACCCC
CTCCTCTACAGCTTTACAATGTTCTCTAGCAGAAGCAAAAACAGGGTCACTGCCATCATA
GATAAAAGGATG

Sequence 727

AGGTACACGTTTTATATCAATATTTTATCAAGCAAAAAGTTGAAGCCAACACCCAAAGCT
GCCAGATATGGAGAACCCAGTGACAATTTGAATTAACCTGAGTGACCCTCTTCTTTCA
AAGTTGCTAAATTGTTTCACAGATTGCTTCTGTGGGATGTAAATAACAGAGTATATATGA
CCTTTTTAAAAAAATTCCTTCTTCTGTGTTCTAAGCAACTGGAACTAAAACTGCC
CTGGCCTATCATAAGGGAGAAGATGGGAGTCTTTTGTCTGCCATCTTGAATGTAATTAC
ATTGTCCATGAGTGTGATCTAACCCTATATGCTCTGCCCGACTGCCCTTATGAAATAT
GGTAATTTAATGCTTAAACAACCTGTTTCATTTGTGTACCTGCCCGGGC

Sequence 728

CGAGGTACCAGATCAAAACCTGGGAACCTTCGTATTTGTCTTTTCTCTCTGCCAGGAATA
TCGTCTCTCCATTTGCCCAATGAGCCCCACCTNCTCAACATTTTACCTNTGTGGAAAT
CCCTTCCTTCCAGAAGCCTCCACTCGCTTTNTGCCAAGGAGCTTCTGCCGCGCCCTGCAC
GCACCTTTACAGATGCAGGTGGCTGTTTCTGTGTGACTGCAAGCTCCCCCGCGTAC
CTGCCCGGGCGGC

Sequence 729

AGGTACTCCACAAGCTTGCCCTGCCATGGGCTGTGCGGATGTCCACGCAGCCACAGTCCTT
TCCTTCCTGTGTGGAATCGCCTCAGTAGCAGGCCTCTTTGCAGGGACCCTGCTTCCCAAC
TGGAGAAAATTACGACTGACCATTCAACAGAAACGAGAAGAACCTGACTGTTTACACAGG
CCTGTGGGTGAAATGTGCCCGGTATGACGGGAGCAGTGAAGCTGATGTACCTGCCCG

Sequence 730

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGATCCAACCTGTTCC
ATTTAATCAAATACCATGCAAACTATTAAGAGCTCCCTCTGACTTTAACAGCCGATTTC
CAGAGAAAGGGCAACTCGCTACTAAAAGATCTTAATAATACAGGGCCTGGAGAGTACC
TGCCCCG

Sequence 731

ATTGGAGCTCCCCGCGGTGGCGGCCGAACTTTATAATCTTTAACTAAATGTAATTGTC
ACCAATACTTATAGACAAAGCATTGAGGTTTATTGAGCTAATGCTGAAGGTAGTAAGTG
GAGGAGCCAGGATGAGGTGAGAATCTGAGATTTTAAACATGCCTATGCTGTCACTTCTTA
CACTTTAGAATACCTCCATGCTCATGTGGACACCTAGGAACAAATGAATATTTCTATTCT

Table 1

TCTCCGAGAATTTTAAACATTAAACATGTTAACTGTATTTTGTGTACCATAAAGCCT
TCCNAGGAGGAACAAGCACTAAACACAGTCTCTGGCTTAAGGATTTTGGATGAACATATT
TCAAAGCCATCTGCTTCNAGCAATTCATAATCCATACCCCTTTTCCTTTTGGCCACT
TATTACCAAGAATCTNCANTAGTTCCTCGGGCCGCTNTANAACTNANTGGGATCCCC
CGG

Sequence 732

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACGCGGGGAGA
TCCCTCTTTGGTAGTATGCGAGAGACGCCGAGATGGAATAATGCTCAGAAGTTGTTTAA
TGACCTTTTGAAGATTATCCAATTGCTCTTCGTCAGTGAAGATACAGATAAAGTCCT
GAATGTGACCCTGCAGATTACGCTCTCTCAGATTAAAGGATATGGATGAAAGAAACCAAT
TCTGACTGCTTATTTGTGGATCCGCCAAATCTGGCAGCATGCCATATCTCACGTGGGACCG
AGATCAGTACCT

Sequence 733

AGGTACCCAAAGAAGTAACTTAGCAACCTCATAATTCTAGGCACCTCTCTCAGGTAATC
TCAGCTGGCTTCTCTAACACCTCTGGTTCTCCCCCTACCAGCATGAGGACATGAACAGC
CATGGATGGTGTCTGCAAATGTTATCTCAGATAGTCTCTGGACAGGACCTGCGAGCAGA
CTTGCTCAGGGCTAGAAAGTCTTCCCTGGACAAATTCAGATCTCTAGCTAGCTAAGAC
AAGTCAGCGCATTTTCTGTACCTGCGCGG

Sequence 734

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTTATACA
ACGATGCTATAAATATTGTATGCATAATCAACAGTAATCAGTGGTGTATCTAACT
AAGTGATAATCTACAGATTGCAGTGCAGTTATGATTCAATGGAATTAATCTAATCTCC
AACTTAATTGTGAGAATAGCTATAAACAGATTGTCAAGAGGAGCCTTTAGTGCCAAATG
CTTTACTTGAGGAAAAAAATTTCTTTGGGCAAACCATCTTTATTCATTGCAGAATACA
ACGATTCTCAAAGTAGCTTAACAACCCCACTCCGCTGGGTAAAGTGTGGCGGCACACGC
CTGTAATCCCAGCTACTTGGGAGGCTGAAGAGGGAAGGCTGCTTGGGGCCAGGGAGTTTG
AAACCAGCCTAGACAACATAACAGAGTCTGTGCGCAAAAA

Sequence 735

CTACTTAGGGCNATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTA

Sequence 736

CGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCACCATCCTGTCATAAT
TCTTTTTTTGGCCAGGGGAGACAAGGTCTACTCTCTTGGCCAGCATAAAGTCCTTT
TAAAACTGTAAATAGTTTATACATTTGAGCATTATTATTATAAGCTTTTGTTCTTAC
CTCAGAAGAATATATTTCAAATGATAGACTTCTGGGACTTTTGGTACCT

Sequence 737

[illegible]

Sequence 738

CCGCGGTGGCGGCCCGAGGGTACCACCCATGTGGAGGAGACTGCAAGGAAGCTGTTATTC
AAAGTAGAACAGTCAGCCTTGTGCTTGAGTCCTGCTTTATGCTTGCCTGTTTCATAACAA
AACACAAAGGCAAGTCTTCATATCAGCACTTAGTCTTGATTCAAGTAGCTGACTACTGTA
CCTGCCCCG

Sequence 739

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGCAGGTA CTGGAAAGAATT
GACCCAGCTGAATTGAAAATGTGGGAAGGGGATGGGGAAGAGGCTGCTCCACCTGAGAT
CTGGCTCCAGGACTTACAGCAAGGGGAACCTGGGCAAGTTACAGACTGCTATGCCTCAGT

Table 1

TTCTTTTAGCAAAACAGAATCATCCCATAACTATAAGGTCGATGGTATCAGCGGGTCCC
CAAAGTACTGCACATCTGAGTCATGTTAACAAACACATTCCAGGCCCCACCTGAGCCCT
CTGAATCAGAATCCCTGTAAGGAGGACGATGAAGTTGAATTTGCACTGACTTTCCAGCT
GTTTCTTACTCTGATCAACTTGGGGATAGGGACCCATTTGAGCTGCATCACATCATTCCA
AAGCCAAAACACAACAGCAGGACAAGAATATTTCAAGGCAGTCTCTAAAGCAGAGGAGA
AACTGTTGAGGGAACCTAGAAAAGTAAAAGGAGATCTGGCTTGCTGGGCTCCATTGAAC
Sequence 740

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTNGGGACCAAGTTTGGCTTACNTGAGAAGTGCAAGGTTGGTTCAAAATACCTACTG
TTTTCAACACCCCTAACAGATTAAGAAAAAGCCATATAATTACCTCAAAAGATGCACA
GATCACTCTGGGGTTGGGGGAAGGGGAGGACTGGGAACAGAGAAGGTGCATTTCATGAA
AACAAAGACTTGGGTTTTTAAATTTGCCTTTATTTTTATTTTTTATTTTAGAGACAGG
GTCTTATTAGGATGCCAGGCTGGGGCTTTCTTTCTTGAAGTCATTTTTTTTCAAAC
AATTCTATATGATAATCAACAGGGATGAACTAATGAANGGCNTNTTAAAGAGGNGGTCC
AGGTAATAATGATTCAAGNGAAATNCCTAAATCTGGGGNGNCATGGTTTACCGGGGACCA
GAAAAACAAAGGGGGGCTCTTTTACTGNTGGTAAAAAGTTANTCTNTACCTGGTGGATA
AAAATTTAAANANCAAGCCCCCAAAAAGGGGAATCCCTACCAATGCCAATNCCNTTG
NCTTTTNAGGGAATNNGNCTTNAACTTTTTTTTTT
Sequence 741

CCCGCCGCGCAGGTACGCCCTAGCTCCAGCTTCCNTTGGGAGACTGTGCATCTCCTGGCTN
NACTAACATNACCTTCTTCTGACCTTCCAGCCTAGAGATGATGACTCTGCCAGCCTAGAT
GGGCTCTGGGTTGCTCCTATTCCCTGTTTGTGAGATTTCCCATTTATGCTGTCAACCACT
CCCCAGCCTAAGCCCTCTCTATTTTAAATCTCAAGTGGATTATGTTCTGATTAGTCCC
TGACTGATATACCACTCTCCTCATGATCTCTGATTAGTTTTCTGTTAGGTTGTTGCAGT
AAAAAAAAAAAAAAAAAAAAAAAAANNGGTCCCTCGGCCGCTCTAGAACTAAGTGGATCCCC
NGGG
Sequence 742

AATANCCCGAATTGGAGCTTTNCGCGGTGGCGGCCGAGGTACCTTCATGCTCTAAATCAT
NATGATCTACTATCTGAAAAGGAAACGACAAATTTTNAACAAAAGAATTTACAAACAGA
TAGGCAGTTGATAGCATGAGGCACTAACATTAAACCCAAGTCTTCAATGGCACTTGGAG
TCCCAGGGCCTGCCCG
Sequence 743

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCCGCGGGCAGGTACTGTATCTCCC
ACTAGGATGTCAACTCCGTGAAAGTAGGAACCTACTGGTCTTGTTTCATGGCCCTATTCCC
AGCTCCTAGAATACAGCCTGGCATGTTGTAGGTGCTCAATAAAATCCTTGTTGAATGACT
GACTGAATGAAACCTGGCCAAGGTCTAAGCATCACTTCAATGGGATTACCTGGAAATTG
GCACCCCCCTCCCCCGCGTACCT
Sequence 744

CCGCGGTGGCGGCCGCCCCGGGCAGGTACTGTATCTCCCACTAGGATGTCAACTCCGTGAA
AGTAGGAACTTACTGGTCTTGTTTCATGGCCCTATTCCCAGCTCCTAGAATACAGCCTGGC
ATGTTGTAGGTGCTCAATAAAATCCTTGTTGAATGACTGCTGAATGGAAAACCTGGCCAA
GGTCTAAGCATCACTTCAATGGATTACCTGGAAATTGGCACCCCCCTCCCCCGCGTACC
T
Sequence 745

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACAACCTGATTACCTGAAA
CAGCAGCANNAGNCATGCAGAGGAGGATCAGCAGCAAGAAGGGGTGAGCCATGAGTTCCTG
AAGCCAGGAGGGCTCCATTCTTCTCAGAGGTCTGAGCTCTGGAAAGCCTGAGAGAACTC
CCGCGTCCT
Sequence 746

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCTCCCACTCTTCTGACAA
AGCAGNTGAGGGACTTTCTCTGCCAAATGAGAGAGTAACTTAAAAAGAAGACAAGGTG
GGATATTGCAACAAGAGATACAACACAGGAGGGAGCCGAAGAGAATCCCTTGATTTGAG
GTGAAGCAGCTGTACCTGCCCG
Sequence 747

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTAGGCTCTCCAGGGAATGC
CATCAGTAAAGGCAGCCTGTTCTGATGTCATGACTATAGGGAATGTGATGCCTTATTGA

Table 1

ATTAGGCGCTGTTTGTCCACTCTTTATCTTTTTTCCCTCCAGAACTGAGGCTAGTTGATC
TTCCCTTGAAGTTTCAGTCCCCCTGAGTAGCTAAGCCCAATCCTGTCTGTACCTGCCCG
Sequence 748
NATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTAACCTGGGCGACAGAGTGGGACCC
TGTCTCAAAAAAATAAATAAAATAAGAAAGAAAGAAATGATCTCTCCTCATAGTTTG
TGTGTAGGAAAAGAAGTGATAAACTGACCTAATTGAACTTCACCTTTTGCTCAGTGACA
GATAAAGCTTTCTTGATAGCATACATTGGCTCAGTGCCAGTAGTACCTGCCCG
Sequence 749
ANGGCCAATTGGAGCTTNCCGCGGTGGCGGCNCGCCCGGCGAGGTACAGTAGTCAGCTAC
TTGGATATCAAGACTAAGTGCTGATATGAATACTTGCCCTTTGTGTTTGTATGAAACAC
GCAAGCATAAAGCAGGACTCAAGCACAAGGCTGACTGTTCTACTTTGAATAACAGTTCTT
TGCAGTCTCCTCCACATGGGTGGTACCT
Sequence 750
GCTNCCCGCGGTGGCGGCCCGCCCGGCGNCGGTACCCACCGTTCATCTGTAACATGGCTGTA
ATAATGGCACCTACTCGTTGCTGTTAGCATTGAAGGAGCCAACGTATGCAAGCCAATCAC
TTAACAAATGTCCATTGTTCTGCTTGTCACTTTCTTGTCTTATACTTCTGACAAACAGCA
GAAACCTTAGAAGAGTGGTCTGTTCACTTTAGGGAAGGCTAAGTCAGCATTAGGTGTCTT
CCATCTTAAAGCACACAANACAGACTGGGTAGAGCAGCANCGTCACTGATCGCCACTCTA
ATAGCTCTCTGGCTAAGTTTCTCA
Sequence 751
GCGGTGGCTTTTCGCCCCGGGCAGGTACTCGGGCCTAGAAATTATTTAANNTGGCGACTGAT
ACGTCTCATGGTGAAGTCTGTTNTNCTAAGGCACTCCCACTTATAGTAGGAGCTCAGCTG
ATCCACGCGGACAAGTTAGGTGAGGAGGGGCTGACATATTCTTGANTCACTCTTGATCA
ATCCCTGACTTCAGGCCCTGCTGGGTCTTCTTGGTACCT
Sequence 752
CCGCGGTGGCGGCCCGAGGTACAATATAGGCAGACAGTTTGCCTTCAGAAATTCAGAAAT
GCAGCTTTTGAGGGAGGTGAGCATCATTGGTCTCAGCTACTAGAGTTGAAGATGATTGAG
CCACTTTTATTCAGCCACTCCATTTCTAGCATACACTAAGAGAAGTGATATTTAAAGA
GGCCATTTTCTGCAAGGATGTTTATAAATAGTTCTTGCCCCCGGTACCTGCCCGGGCG
GCCGCTCG
Sequence 753
GGCGAATTGGAGNTCCCCGCGGTGGCGGCCCGCCCGGCGAGGTACTGAAATACTTAAGAAA
TACTTTTCACAAGTGNCAATAGATTTATGTGTTATGGACTCATTGCAGANGGCTGAGGAG
CAGTAAAGGAGGGAAGGTTCAAGAAAGCCTTCAAAAAGGAAATAACACTTTACCAGAGCC
CTGCTCACCAGTAAGAGCAAAAATTGTGCAACTTTGATATTTAAGAAATGGAGGGTACT
GCTAGTCGTAGNGGTGGGTGAAGTAATCTATATGACTAAAGCATCAAACCTCTAATAAGA
GCATTATAAAAAGAGGCTAGAAAATTGGACAGGCAACATTCAACATATCTTATAATTAAA
GATTTGGTAGTNTTATGTTAGAGGTGATAGACACATAGGAGAGTTTTTAAATGTGGGAA
GTAAATTTGGTCAAGACTTGACTTTTTAGAACAGTAATAAAGGAGTGCCAGNTATTTTTT
GGGAATTCATTTATGGTGACCCTTTTAA
Sequence 754
CCGCGGTGGCGGCCCGCCCGGCGAGGTACCACAGGGAAGAATACCTCAGTTATTCACCTT
TTGTTTAAATGTTTTGGAATAACACAGACACAGCAATTATGAAGTTTTCTCTGCTCTAC
TTAGATGAACAGATTCTGTTAACTAAAATGAAGGCAAATGAATGAAGAGAGTTCTATGTT
ATATATCTGAGAGCAGGGTCTCTATTTTGTATACACTGACCATTGTTTCTCTGTAAAAA
TACAATTAATACTTCATCCTCTCCGTAACCTCAGTTTTAGCTGAATACTATTTTTAGTCC
ATTGTATATGGCAGACTTTATGTTAGGCACGAGGGACATAAAGATTCACTTCCTTCA
CGCCAGTAAATANTTGAGTTGGGAATCTTCTATGTTCCGAGGCACTGAGTTCAAGTGC
TGAAGGTTTAACAATGAGCAACACAGACACAGTTTTGCCCTNCTGCAGGGTACCTCGGCC
CGCTCTAGAAGTGTGGGATC
Sequence 755
CGAGGTACTGTAATTTTGGGGAGCAAGCTAACACATTTGACTTGCGGCTGAGCTCTTAAC
TAAGCAATACCTCAGTATGCTCCTTCGGGAAAAATTAAGGTTTCAGTAGTCAAATACTTT
TGGAAATGCTGGGCCATTATGCACAGAGAAGGCCGAGTAAGGAACATTTTAAATTTGAA
CAGAGAACATCCAAATCTAATTCATCTTAGAATCCATTTGCTATGGAATGTACCTGCCCG

Table 1

Sequence 756

GTAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAGCAATGACGTGGGGAGAGAGCGC
NGAGGAAGGGAGAGATCCAGAAAGGTAGATTCTTCTGTGTAGGTGAGTGAGATAAT
GAAGCAAGTTAATTTGGGCTCTGCTGACTTATTTATCTGTCCCGGGCACTTTTNTCTGTA
CCTGCCCC

Sequence 757

CGAGGTACTGCGGGCNCTCTTGATTCCAGTCTACTGGACTGCTTGTTGCTTTGGGTATTT
GAGTATTTATGTGTTTCTTTTGGCTCCTGTTTGCATGGTCACTGGCTGTCATAGGGAATG
GTGATCGGCTTTTCCAGTTGCTCAGGNCACAAAAGAGGTTGGCTGGTGTGATGGACAGCA
CATGGGATTTGGAGTTAGAAGGTCTCAAGTTAAAAACCCCTCAGGCCCTGCATTCTAGCT
GGGGGACCCTCGGGCAGGTTGCTTGAACCTCTCACCTTGACTGGTTTGTGAACCTGCAG
AGTGCTAGCAGCACCTGCCCCAGCGTGGGGGAGTGTTTGCAGATTAAAGTGNTGTG
AATGCACCTTCTCGATGGAGGGCCTCTANACCATGGTTTCTGTCATCCTGTATCTGTAC
TCACCCTGTANGTNAAGGGGTTTTTCACATTTGNNGCATCAAAAAGACCCCTA

Sequence 758

GCGGCCGAGGTACATGGTGGCTACCACATCCTGNTGTTTGTCTATACTGGGAGAATCAGG
CNTTCCNAGTCATCTTGGCTGCCCTAGCTCTGAGCTTCAGGGGATATGACTCAGAAAT
GCTATGCTTTCTGGAATTTGGATATTTCAATTTTATTGTTCTTGGTAAATTCCTTTTGA
CTTAGGAGAAGCTAACTATTTGAAAGGTCTCTCAGAACTCTAATTACAAATATATGGTA
CCTGCCCGGGCGGCCGCTCG

Sequence 759

CGNCCGAGGNACTGGNTTGACANTGTGTTTAAAGTCAAAAGATTAGGCTTGAGATCTCTT
TCTAGTGNGATGGTTTTACAAGTATATACCGTATGTTAATGNTTAAAAATTTACACCCCC
AAAAATGTGCAGNATACCAGATGTTAATTATATCTCATAAAGCTATTAATTTTATCTC
AAAATTATAGCTTTATTGCATTTAGGGCATTATCCAATTTTGAATCTAGTCCAGTTATCA
TAGCTTAATGCAGTATTATGAAAATAATGCCTATAAAGGGCCAGTTCCTCAAACACCCCTT
GGAACCAATTTTGCCATCTATATTAGNNACCTTGGGCTGCNATAATGAAGTACCCTCGGC
CCGCTCTAGAAGTAGNNGGATCCCCCGGGCTGCAAGGGAATTCNATATCAAGCTTAA
TCGATACCCGNCGACCCTCGAGGGGGG

Sequence 760

CGCCCGGGCAGGTACTTGTAGCAGTCCACAAAGAGAACAGCCAGAACATTCTCTATGCCA
CTGCCTGCTTCTGGGTGAATCCAGGTGTGAGTAATGAGGCTCACATGAGTGGGTATATC
ACTAACACGGCTTAGGAGCCCCATCTCNAGTCATTATTTTGGCTTGACAACCATGAGCTTC
CAGGATCCCAGACAAGGCACATGGCAAATTACAGGAGTCTCACACTAAGAGAAGCCCTAA
GCTATGGCCAGCACAGGTATTTATAGTTCCTCCAGTCCCTTTCGCAGTTTACCAGTGGGT
CATTTTACCATAAGCAGTGTTGCCTAGTAACATAGCTGACATTCTGCCTGTATGGTTTC
CACGGGAACAGAGCTGATAGCTGGGTTAAACTGAATCCAAGCCCAA

Sequence 761

TGGCGGCCCGCCCGGGCAGGTACACTTTTTTGGCTTATGGGTATCTTAGTTTAAACCTTTT
CTNTTTGAGNGAACTGTGTCAATTTCAAAGCCTGAAGACATTGTGATGACTGCTGCCCTCC
ATAATGGCTACATTCTAGGGGCTTTGCCCTGAATCGAATATTAACAAAAAGCAAACAG
TACCT

Sequence 762

CTCCTATTTGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGCCACACCAAAA
TCTGGGAGAAGACTATTTAGGAAAGGAGGAGGAAATTTGAAGACCTGGGGCTAGAATGA
GCTCAACATATTCTAAGATCGGCAAGTTTAGTGTGGCTGGAAAAGAAATGAGTAAACAGA
GAAACCTGANATAAGATGAGGTCACGGAGAAATGCATGGGTCAGACCAGTATAACCTTG
CAGGTCATGGTAAAGGCATCTGGACTTTATACTGAGTACCTGCCCC

Sequence 763

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACTTTTTTTTTT
TTTTTTGGGTTTATTTGCTTAGGATAATGGCCTCCAGCTGCATCTATGTTGCTGGAAAGG
ACATGATTTTGTCTTTTATGGCTTGTAAATGGTTCATGGTGTATATGCACCACATTT
TCTTCATCCATTCCAACGTTGATGGACATCTAGGTTGATTCCACGCTTCACATTTGTGA
ATAGTGTTCANTGAACATATGAGTGCATGTGTCTTTTCAATAGAATTTCTTTTTTNT
TTTGGGATATACCCCCCANTAAATAANAATTGCTGGGGTCNAAATGGGTATTATCAITTC
TCTTTTTAGTAAACCAACTTATAAAAAGATTTTAAATCAAAG

Table 1

Sequence 764

TTAGGAATTTNTATATCAAAGCCTTATCGAAACCCGCCNACCTCNAAGGGGGGGGGCCCGG
GANCCAACTTTTTGGTCCCCCTTAANGGAGGGGGTAAATGCGCCCCCTGGGCGGAAAAAC
AAANGGCAANAAACNNGGNTCCCCGGGGGANAAGGNNATACCCCGCACANATTCCC
CACCAAAAAANTANCCCGGCCCGGGGAGCAANAAAGGGGAAAAAGCCCNNGGGGGGGG
CCTAAATGAAGTGAAGCCTAACTTACAATTAATTGCGGTTTTCGGGCTTCACTNGCCCCG
CTTTCCAAGTCCGGGGAAAACCTGTGCGNGCCAAGCTGNATTAATGAAATCGGGCCCAA

Sequence 765

CCGGCAGGTACATTCAAATTTTTGTTATCCTCTTCAAGAAAGTNACCTNNGGTAGANTNCA
TATATATCCCAACATNNTAGGAACATCAAAATGCATACTTTTTGGTGTGATCAGAGAT
GGGTAACCTCCTTATTACTTGTGGGTAGATAGTTTTGGAATAGCCTGGAGTCATTGAGAG
CCAATCCTTATCAACAAATGGCATAAATGGACAGGAATGGGTTCTTCTTCACTTATGAG
ATAGCTCTGAAGACATGTCTCAANTGGGATNAGTTCAGNTGCATATATGAATAGCAGTC

Sequence 766

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGATTCA
GAGTGAGAAGGCATAAAGGAGAATCCCCAGCTGACTTGTGCAGTGGTTAATTGAAATTAT
TCAGGCAAGAGATGATGGTGTCTTGGACCAGGGGATGAGGAAGGCTACAAAATGTGTCTA
CCTNATTCTGTGAGGAGAACGTGTTCCCTGGTTTTAGATACTGTGAAGATGGATCAGGAG
AGAGTTTTATCTAGACTGTTGGGGAAAGGTGTTGCGATTCTTCAGCTACACAGGATTGAA
AGGAGACATTTCTGAAGGGGAAAAAGGAANTGAAAAAAAAAATNNNNNNNNNNANAAA
GTNCC

Sequence 767

TCGCCACCCATNTGTGAGGCACAACTGTNGNNGNCTNCATTTACAAATGCAGAACTT
AGGACCATGATAGATGAATGATTTGTC

Sequence 768

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTACATGGGGACCGCCAGG
GGCCTCNAGAATCGGTATCCTGAGTCCTCTTGAAGAGCAGTAGAGGTTGTTTCATTAAGT
GCAACACATTGTTCTTAATTTGAAACTGTGGGCAGAAACAGAAAGCCCGAGACTAATTT
TTCCATTT

Sequence 769

TTAGGGCNAAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCTTAATGGCAAAAGAGA
ATCTTAATCCCTAAGAGCTTTTTCTAATTGATGGACATCATTTTCCAATTGAACAAATTG
GAATTTATTAGTGGTGAAGTGTGGCTTTGAATCTGAGCTAGTTATTCTTGCAGTCACAGA
GAGTGTCTTATAGAAAAATAAAAAAGGGAAGCTCAGTTCTGCTGAATATAATCAATATA
CACAATCAATTGATAATTCACAACCTACCTCTTGCCTTCTTGCACACTCTTCTGCCAC
TCAGAAACATCCATACTTACTCTTCAAGGATGGGTTTTTGAAGCCTGAATTATCCAGATGG
GCTGTTTCAACTTTTTCAAGCATACTTAAAGTTGAAAAGGGATGGCCCTAATTTCCAC
CTCTAATTTCCCTTCCAATTTCTGGGTTTGAAGCAAGACTNGAGAACTTGGG

Sequence 770

TTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGATTTCTGTA
CATTGCTATTTATATGATGCCACTTAACAGGTGCTTGGAGGAACTCCTGACTCATTGCT
TACCTCTCAGGGCTATGTAAAACACACAGAATTTATTAACACATCACAAGTGGTACC.
T

Sequence 771

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCTGCGCCAATCAT
CACAGCCTGGTTGTATCAAGTGTGTGCCAACTGCCTGCGCTAACAAACCAATGCAAAATG
TCATACGTCTCTGTCACTAGCAGCATAGTTGCTAGAGAGACACGTGTGAGCCACACCTCA
AAGACAAGCCTTCATCATCTTTTCTGAGATAGCTGACTAGCAATCAGATGTTCAAATA
AAGCTACTTTTCTGTACCTGCCCCG

Sequence 772

CCGGGCAGGTACTGNTTGTGATCCAGCTACTGAGGTCTTGAACCGAACAGACCTGGGAAG
NGTCTCANAGCTGTCTCTCAGGCTCTGAGAGAAAGTAGCCAACACTACAGTAGACAGAGA
GAGACAGAGATCAAGACAGGAGACAGAGACAGCATAAGACAAAAATACTTTATGAAATTG
CCAAGTCTCTCAAGACAATTCTAGNTAACNTCTTTTCAGCNAAANTGGNTGGAACCCAGGG
CTTTTAACCTCCAAAGGTNNCACAAANNAATNAAACTAAATNANNAANAATNGCTTCN
CTNNGGGCGCGNCTTCTTATGTAAACNTATNGNGGGGNTATACCCCNCCCGTNGGCCNTG

Table 1

Sequence 789

AGGTACTTATATGCTAGGAGCCTGGGACATACTTTTATTATTTTCATAATTTTACATCTTT
AAATCTTAAAGAAACATCGGTAATATCTGCATGAATCAGAATTCAAACGCAGCCTTGCTT
TCACAATCATAGATTTTCAGGATCAGAAATTTATTCTGTCAAGAAGAAGGATGACCAAAA
ATGCCGGACGCGTGATCGACTCAAGACCTGCCGGGCGGCCCGCCAC

Sequence 790

GGGCAGGTGTCTTAGGTAGGATCTTGCTACTCTGTGTGCACTTATCTTGGGAGTCAGAGT
AAGTTCAATTTGTCTACTTTATTCTGTGGTAGTTTTCTTGTATTTTACACTACGTCCT
GTGTGATTTCAATTTCAATTTAGTCTTTTTGTTTATTGGGTTTTCTTCTTTCAT
ATTGGCTTCATCTAAGGAACAATAATGTCATTGTTCAATTCAGAACCAAGAAAATATAGA
ACACCTAGAAAATCAATCAACCAACAAACAAATGAATAGTAGAAAATCAAACACACATG
TATTGCCTCTTGTTTCTTGCTGNAATTTTCCCTC

Sequence 791

AGGTACACTTTTTACACCATAACTGCCATGTGGTGATAAGCTAAGTCATCTCATTCTTC
TCCCTTTCTCTGTGCCTGTCTCCATGGTCATTGGTCCATCATCTGTTAACAGGTAGGA
GAAGGCATGTTTGCATTTGAGAATGATGGTACTATAAGCAGTCAGTTGCTTATACTGGT
CTATGAAGCATCTAGGACTGTCCCAACAAGAGAAGGAAAAAAGCCAAATGGAGCGG
ACGCGTGGGTGCGACTCAAGCACCTGCCGCGCnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnTGTTCCCTTTTAGTGAGGGGTAAATTGCGCGCTTGGCCGTA

Sequence 792

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAGTTTACT
ACCCAAATTGATATTACTACCTGAGCATTTTTCAATTTCTTACATAATCTTCCAAAACAT
TCATTTTATCTACCACAAAATATTAATTGAATAAAACATTTTGTGAAATTTGTGGAGC
TGGGCTTTTAGACCGGTTTTAACATTTCAAGTGAATATGTAATGCAGCTCAAAGCTTTG
TGCAAGTGGT

Sequence 793

AGGTACCCTCGGTTGCAAGCACAAGCAAATGTGCCAGGGTGGTTGATGCAGCTGTGGTCA
CAGGTCCTATCCAAAGAGCACTCGTCCACATCTTGGCAAGACTTCTCATCTGTTAATAAT
TTAAATCCTTTCTT

Sequence 794

CGAGCGGCCGCCCGGGCAGGTACATCATGCCTCCAGTTCTGGAGCTAACACAGATTTCTC
CAATTTCACTGTTTTGCAGAGCTGGGGAGGTCCATCTGGTTTCAATGCACATCATCC
CACCAGGCATTACATGCCCTACATCCTGGACCGTCAGTGTGAATTTTATCTTCAGTAT
TGACCCGTATTACCCCATAGCTCAATCCATTCAATGAGAGAATGGCTCTTCTGGCAAAG
GGGCTCCTGGAATCCAGGCCTGCGGATTGCTACAGTCATGGCTTCAGCAGACGTGGCGC
ACGGTCAGATGGCCTCAGGCTTCAGTCCATGACTTTGGAACAG

Sequence 795

AGGTACCCTCGGTTGCAAGCACAAGCAAATGTGCCAGGGTGGTTGATGCAGCTGTGGTCA
CAGGTCCTATCCAAAGAGCACTCATCCACATCTTGGCAAGACTTCTCATCTGTTAATAAT
TTAAATCCTTTCTT

Sequence 796

CCGCGGTGGCGGCCCGCGGGCAGGTACAGGGCAATCAGAGGGTGAATGATACGCACACC
TGTGTATCTCCATATTCTGCAACTTCTGTTTTTATTAGAAGTGTAGAATAAGTTCCCAT
CTTGCTTTCTAAGCTTTCAGGTTCCAGGGTGTACCTCGG

Sequence 797

CCCTTTTCGAGCGGCCGNCCGGGCAGGTACTTCCTTTTTTTTTTTTTTTTTCTTTTTAGCT
ACCTGGGTATCTAGCTTGGGACCCTGTCTCTTCCCACTCCACTGTAGGGTAAGATNAAA
CTTTCTAGGATTNTTATTAATGAAATTATATAGCATGGATACTTTTATATCTGGCTTNT
TTTGGTTAGCATAATTTTTGAGATTTATCCACGTTGCTTGTATCATTAGTTTGGTCAT
TTTGCATTGGTAANCAGCATTTTCATTGGGTGAACATAATAAACTTTATTTTTCTGGTGA
TGGACATTTAAATTGGTTTNCGATTTGGATAACTGGAAATAAAAACTGCTATGAACACAT
ATGGTCAANTCTTTATGTGGGCAGATAAATGCTATTTTTTAAATTTAAGAAAACTAAAC
AACAGAAGTGAATTGANTAGCAAGTCACCCATATTTAAAGTTGGAATCATCTGAAAAGAT
TATATATCTTGGTTAAAACTAAAACT

Sequence 798

CCCTTAGCGTGGTCCGCGCCGAGGTACTTTATCATCCATAATATCTTACTCTCTAATCCA

Table 1

CATAATGGAGTTGTGCCAGACTCCAACTGAACATAATTTATATATACATATATATTT
ATATATATACACACATACATAAACTATAAACCTGAATATCTTAGCATACAAAACCTATCT
AACAACTAATAATTTAGGATTCCTTTGAGAGGGAGGGGTTAGAAGAACTCTTCTTAGTC
TTTGAAATAGTNCCTGACAGTAAGCAATAAACACATTATTAATTNCTGGGTTCTCATTTA
TTCAAGTGAAAGACAAATAAAATAAAATTCACCTCTTGAGCCACTAGAAATTTTGAAAT
CATAAAGGATTATTTGGGAAATGAGTAAGTCTTTAAGAACAATTTAGTGNATCTAAAGT
AAAGTGGATTTTGGTAAGATACAGAGAAAAANTCTATGCATAAATNAATTCTTGNATCAT
TGAGCAACTATAATCGCTAAGGGGGGTCTTNTAAGNATCTCAGGAATGTTTTAAATA
TTAATAGTGAATAAATTANATTGAGGATAGGGACCAATC

Sequence 799

AGGTACTCAAAAGGCATTTCCGCTTACAATTTGTAGAAACACAAAATGCGTTTTCCATAC
AGCAGTGCCTATATAGTGACTGATTTTTAACTTTCAATGTCCATCTTTCAAAGGAAGTAA
CACCAAGGTACTGGGTAGATATACGCAGGTGATCACAATCTTTATGTCTATTCTTGAT
CCCTTTTTCTTTACTTCCCAAATTTGCCACATCTTCTTCTACAGCTAATAGGATGGGC
TGCAATTAATTGGTAATGGTAAAGAGATTATGCTTACAAAAGAGGTGAATGTATCATATA
AGGAGCATAGGTTGGAATTTAAGAAACGTAACCAACATATTGGAATTAATA

Sequence 800

CCGGGCAGGTACTACCCAAGGTCTCTGTGACTCGCCGCCACTACCCAAGTGAATGAGT
CTCCCTAGAGCTTTGCTACTCAGAGGGGTCTGAGGACAACAGCATGGGCCAACACGTGC
ACTCGAGCTGCCTGGAGATCTTGTTCAAAGGCAGATTCTGAATGAGTAGGTCTGGGTTGG
AGCCTGAGAGTCTGTACCT

Sequence 801

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTGTAAATAAAATTTAATGGAACAC
AGCCATGCCTGTTTCATTACATATTGCATAACCCCTACCCCTAGAATTGAGCAGTTGCAA
CAGAGGCCATATGGCCTGACAAAGCCTAAAGTGTTTACCTATTGGGTTCTTTACACAAAA
TGTTTGGCCACCCCGGATTATATCATGGACTCGACTTGTTTTGGTTTCATATTCATAGTC
TGAATATATTTTGGTAGCCTTAACAGTTCTACAGGGAGAGAATATACAAGTCAGGCTATT
CTAGGTTTTCTGTAGTTTCACAGATTGTCTATTATAATCAGAT

Sequence 802

AGGTACCAGGACCTCTAACTCCCCCTGACACAGAGCAATTAGACTCCCATACAATGGTA
TCAATTATACCACTCCATTGGAGGGACTTCCTTTATGTGTACCCAGGATACATTGCTCA
ACTGCAGTTGCCTTGACGTTTGATCCCAAGCATGGTTGAGTTACCATAAAAAAATTATGT
ACCTGCCCCG

Sequence 803

CCGGGCAGGTACCTGCTAAGTGCTGGACAGCCTTTCTCACATTTCTCCAGCAATCCTA
GAGGCAGGCCTGGTTGCCCTTTGTGAAGCTCAGAGTGTTAAGTAACCTTGCTCAAAATCAC
AGAGCTACTAAGTGGTACCT

Sequence 804

CCGGGCAGGTCTTCCAGGGATAGTTTTCCATTTGATTAAAGTTTTGTTCTTATGTTACT
TTTTACTGTTGTTTTTGAGTTTACCTAATGCTAATAGGGTCTCAGGAAGTGTATTTGAT
GTTAAAGTGTTGGTTTTCCAGAAGATGACAGATAATTGGTGGTCTCCCTTTTCTCAGC
AACATAGTTTGTACAGCACTAGTCAATTCCTAAGTCTGATTTGTGCAAAATTTTATC
GTACTTGAGAGTTACAAAGCAAGTGAGAACTTGAGGGATCAAGATCCTGGAGAGAAGGAA
ACCTTAAAGGGTAAACCCAACATTTGGCTCTACTTTTCCCTTGAGGTAT

Sequence 805

CCGGGCAGGTACAAACCCCAAGTGATTATAGAAAAATCAATGTGGCAGCTACACTAGAGA
TGTCACACCCCAAGGCTATGGGCCGTTGCTCCCTCTTTCCCCCAATCCCAATCCCGCGT
ACGCGGGGCCTCTTTCCGTGGCGCCTCGGAGGCGTTCAGCTGCTTCAAGATGAAGCTGA
ACATCTCCTTCCAGCCACTGGCTGCCAGAACTCATTGAAGTGGACGATGAACGCAAAAC
TTCGTACCT

Sequence 806

AGGTACCCCTAAGTGGAACCTACCAGGACATTCAAAGCAAGAGCAGTAAGTTCTGAATG
TTCTGGGACAACCTGGGTGATATGCATGGATATGGGCTGTGGAGGCTGAGCATTTAATG
ATAACTTAGGGAACGAGGCATGGCCATGGTGTAAACTCTCAAATCCCAAGCCCTAATC
CAACCTTAAATCCGAGTCTTCTAAAGGGCTGTTTTAACCATGAAAGGACCATAAGAAAG
GCAATTCACAGAAAATGAAGCCATGTGGCCAAGAAATATAAGAAAAACAGTAAAGCCCT

Table 1

TAATCTCAATAGCAATAGAGTGGATGCAAATGAATATAAT
Sequence 807
CTCTCCAGTCTTTGATTGTCCCGCAACAGTATTACAAACAAAAGGCATTAGGCAAAGCAT
GCTGAATTGATTGGAGTCCCTTGGTCAAAGGTATTATTGATTGACGGCAATCAGATCCAC
TCCCTCAGAAAGGATTTGAGTAGGCCTNTTCTGTCCATCTGCAGAAGGTTCCCCAAAAGG
GGCAGAGGGCCGGGGCCCTGGTGGGAGGGTGCCATGGGAGTTAGGGTGACCCTGAACCAG
GAGTAGCAAG
Sequence 808
AGGTACTGAATTCTACCCTGGAACAAACCCAGGTGTCTCCTCAGCTTCAAAACTC
TCAGGGAATGAATCCCTGTGTCTACACCCAAGTATGTGGAATTTAAGAACCTGCTGTGG
ACCTACCTATTTTCTTAGAAATATGCAGCTGAATATAACCATTTTTGGATATTTGAGATC
ATTATGTACCTGCCCC
Sequence 809
AGGTACCAATAATGGAGCTAGAATTCCTATCAAAATAATGGAGCTAGAATTTCCATCAA
CATATAAAGTCCATATGTGAGCCTCATATAAGGCCAACTGTAAATCAGTCAAGTTCTA
AGTCTTTCTCCAAGATCTGGAAGAGTGATTGAGCATTGTTATTTTAAATTACGGACT
ATTTTTTCCATACAAGGAAGTTAACATCTAGAGCGATCATTCTCAAACTTTATTGTATA
CCAGAATCATTGGAGGATTTATTAACACAAAGTGCTGGGCCCTACTCCTGAGTTTCT
AATTCTGTACACTCTGCCCCCATCCCGGGATGAGCT
Sequence 810
CCGGGCAGGTACAGGTATGGGGACCACAGGAACAGTTAAATTCATGGCATGGCTGGTCTA
CCACACAGTCCGGGGGAATTCCTTAATAGAGCCTGTCACTCTCTTGGCCCATCAATGGGA
TTTCTTCTCGAACTGCTGATTCTGTTACAGGTACCTCGGTCGCTCTAGAAGTGTGGGAT
CCCCCGGGCTTGCAGGGAATTCGATATTCAAAGCTTATTCGGATACCCGTGACCCCTCG
AGGGGGGGGGCCCGTNCCTCCAGCTTTTTTGTTT
Sequence 811
CCGGGCAGGTACTTAAGAACTCTCCAGGTAAGGAGCATGGCTCTAATGGGAAATCCTTCA
GGTCGGGGTGAAAGAGGAAAAAAATGGTTACCAAGGATGAAGTGTAGCTCACITTAGGA
ACTGAGCTTTCAGACTCCCATAGAGCTAAATGATAAAAGAAATTTTTTTTTTAAAGAAA
AAGGAAAAGAAAAGAAAAGAGGAGGAAAGAACCAAGGAATTCATAATGTCTCAGAAAAA
AAGCAGTGATTCTTCTCATTACTTTTGTAGCAATGAGACCCCTACGCTCCCGCGTACCC
TCGGCCGCTCTAGAAGTGTGGATCCCCCGGGCT
Sequence 812
AGGTACTTTATTCTCTTATCCAGGACTGGATCAAATGATTTATGGCATTGTGCTGTTTTA
ATGTTCTCATCCACAGGGTCTGATTCCAATAACTTGAAGCCCCAAGCCGCTAGAGGTTCT
AGTTAACAGCCCACCACACAGCCAACGTCAAGAATCTTCATCCCCAACAAAGGTTTTN
CTGGCTGGTGATTTAGGGAATTTGTTTTCAGAAGATTGTCCCTAATTAATGNCACCCC
TCNAGGTCAATTCATNGGAAATNGAAGAGGNGCATATACTCCCTTGGTTCATNCCACCA
TTTGTGNAGCCANGGCCAAGAAAGTT
Sequence 813
CGCGNGGGCGGCCGCCCGGGCAGGNACTNTTGCCNNGGGANGAAAAACCCCGACAGCAGC
AAACNGCAGAANCNNCAGACNGCAGGCTGCNGATGGNGAGAGGGAACNCCGCCCANACC
CACNGCCACNGAACNNGGCGGGANACCAGNGGCCNNGGNGGANGACCANAGANGAGGA
GCCCGGGTNTTCTGGCCAGGGGGCNGCNCGCCACNCGGCCGNCNAGAACNAGAGGACCC
CCCGGGCNGCAGGAANNCGANANCAAGCANNANCGAAACCGNCGACCNCGAGGGGGG
Sequence 814
GCATTGGAGCTCCACTTTTGGTGGCGGCCCGCCCGGCAGGTACTCATCAGATGGAATGTT
TTACCCCGCCGAGGTTTTAGTCATGATGTGCTGAGCTCTCTGCGTCTGACGTGACTGACT
GGTAGCTGGGCGTTGGCGTGACCTTCTTCCCTCTAGGATCACATCATGGAGAATTCCA
CCTATGGGAAAATTAAATGATTGACATGCCCGTGAAAGGATGCATCCCCTCTGTCCA
AAGGCTATGCGTACCT
Sequence 815
TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATCACAGGATTAAC
TCCAGTTAAGCAACTGAGCTAATCATTGAAGTAAATTAATAACCAAGCTTCTTTAACC
TATCAATGCTGTTTTAGAAGCATCATCCGAACAAATAGAGATTAGTTATAAATTGNCCTG
GGCTACATTCTGTGATGAGAATTTGCTTAGTACCCTAGAGGAAGAGAGACTAGAGGCC

TTATAAGGACATAAGAGCACAAAGTTCAGTGCAAGAGATACATCCAGGCTGCACAAGCT
CCGGGAGTGGGGCCTGGCAAGCCAAAAAGAAACCAAAGTTTGTCTTGCCTTCTGTTCTCT
TTCTGAAGCCACATAACCCTTTATTGACCNNGTNTCTTTCATCGCTTTTGTTTTCTTT
TTATG

NCGCCCGGGCAGGTACCACAAGAACTATGAGCTGGTTATCCACTTCATGTGGAATCATAA
 GCGTCCCAAAGTGACAATACATATAGATTGCCAGGCAGTGAAACAGTTAAGATGCCACCA
 TAGCTTTCTTTCAACATCTTTCTAAATTACCTTACTATTTCTTTGTTCCAAGTTTGT
 CCT

[illegible]

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAGAGAAGCAGCTGA
AGTTTCAGAAACATGCTGTTATGCTTGCTAAGGATACAGACAGAAAGTTGACTCCGATGCT
TAACATCAGAGAAGTTGGCCCTTGAAGGGGCGATTGTTGATCTTACTAGACAAAGGACAGAG
TGAGAGATTATGCCATGATATCAAAGAGACTTTAAATTATATGCTTACATCTATGGCAGT
GGAAAACTCTCCCTGTGGTTAAAGCTTTGTAAAGACGTACCTCGGCCCGCTCTAGAACT
AGTN

[illegible]

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAATAGCATGGGAA
CCATTAACCAGCAGGCCATGGACCACTGCAGTATCCTTTGTACCCAGAACAGCACCAA
GGTCAGAGGGCACCTGTATTCATAAACAGCTGCCTGACTGTGAATCCTGATGAATCAAG
CTCAAAAGGAGAAAACATAAAATNCATAAAGTACCTN

TGGCGGCCCGAGGNCACCTTTAAACTGTATTGTATTCATGTTGCTAAACAATATTGGCCT
TCTCGATNATTTTATTCATGTTGCTCCAAAGTTAAACCCCTGTAGAACAATAGTAGGTGAA
GAGATATTTTGTATAAGTCCCGAAGAGAAAAATTAATAATTAAGTAGTAATTGAGCAT
CACTAGAATAAAATAAAATGAGTAGGCATTCTTAAGATGTGAATGATCACCTAAGATAT
ACATGCTCCAACCATATTGATTTAGAACAACACAGCAGCCCATAACAGTTTGTGGCC
TCTACTAACTGNCCCTCTGCTGCCCATCTAGAGGTTATGTTTCTCTATTTTTAAATAAAA
TGTA

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTTTTTTTTTTTTTTTTTTTTTTT
GGTTGAAAGATTCTAAAGTGTGTTTTGATCATGTTTTCAAACCTTAAAAATCAAGTTAC
TTACTGAATCCAACCATCCATCTGGAACCTTTGATATTCTTCTGTCAATTACAGATCTGCTA
AGAAAAAGAAAAGCACCATTTCCTTCATGTAAAGATACTTTGTACAAAATAAAAGTA
ATCTATTAATAAAAAATGGAAGTCTAATGTCTCCCAATGGCTTAAACTAAGGTTCTAGGCT

Table 1

CAGACTCATGTCAAAAAATATGATCTTATTACTTGAGTAGTTAAATTAAGAAATTTAAGA
TGACACATCGAGTGAAGAAGGGATGATGAATGGAACAGTCTGAAGGCATTAACTGTAAAG
AAGTTGAAGTGGAGTTTAGAGAATGTCATCTTAACAGTTACTCTAATTCACCCCTGT
Sequence 830
GNGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTTCNNGNT
TCTGAGTCCAGTCCCCTTNGCATAAACNCCCGGCGNNGCTNTCTCANCCTCCCCGCACCT
TCATGCNCAGNAAATTCCTGGACAACCTTGTCTTTCTCT
Sequence 831
AGGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCGCCCGGCGAGGTACGGGAAGGCG
AAGAAAAGAATAGAGAAGATAGGGAAATAGAGATAAAAAACATACTTTTAGAAGAAAAA
AGATAAATTTAAACCTGAAAAGTAGGAAGCAGAAGAAAAAAGACAAGCTAGGAAACAAAA
AGCTAAGGGCAAAATGACTGTTTGAGGTTTCAGGAGTTCACTGGGGGCCTTGGAATGTA
TCTCCCGAAGATAAGGGGGAACTACTGTAAGCAAAATCGAAAGCTATACAACAATCAGAA
ATGGGAAGAGAGCAATCCAAGTATAAGTGAAGACATTCCTCTGAATCCCAGCATTTCAT
CGAGCATCAAAACGACCAATCTTTAGTCCTTTCTTGACCTCGGCCGCTCTAGAAGT
AG
Sequence 832
TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGACATTCCAAATGGC
TGCAACTAATCAGGAATCGATCGGATTGTAAGGACATTGATTGGACGACATATACCTGT
GTGCTAGGATTTCAAGTATTTGGTGTCTGGCCAGAAAGGATCTGATGGGACAGATATCAA
TGCACTGGTGGCATCCCAATAGAAAGGTGATAGCTGTTGCCGATGACTTTTGTAAGT
CCATCTGTTTCAGTATCCCTGCTCCAAAGCAAAGGCTCCAGTCACAAGTACCTGCCCGG
GCGGCCGCTCGACTGGCGTTTTTCCATAGGC
Sequence 833
CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTCTAGCCTTC
GAGGCCACCTTCTNTNTGAAGTCTTCCCTGGCCACCCTGGGTCACTGTGCTGCCTAG
GAACCTACAGCAGNGAATGCCTGCATGATTNATTTGGNACCTGCCCG
Sequence 834
NGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGGTACGCGGGACAAAATAAGAAGGC
TTCCTGAAAGCACTGCTGCTTGGCATACTTCTTGTAAGTAACCCTGTACCGTCTGCTTTT
TGAAGCTAACTAGATCCAAGAAATTGACATAAATAATGAGCAAGAAAAATGATTATAAGA
GGATATTGCCTCATTTTCCACATATATTCTTATTCTGAAGACTACTTTGAGGTCAACAT
TCCAACAGCTTACGAGCAAAACATTCTGGGGAAATAAGTGAGAGAAAGGAAATTGAAGA
ACTATCAGAAGCTTCAAGAAACACCATAACCACTAGCAGTGGTGTCTCCCACTGAAATTC
ATGTGAGAATCCTGGTGAAATATTCATAATTTTGAGAGATGAAGTAATTGGTGATACTGT
AGAGGTTGAATTTACATCAAGTAATAAGCGCATTANAACACGGCCAGCCCGTTGGAATAA
GAAAGTCTGGTGCATGAAAGCTTTAGAGTTTNTGCTGGTTCAAGTCCATGTCAATGTCT
ACTGTGATGGAATCGTTAAAAGCTACAACCAAAATTAAGTACCTGCC
Sequence 835
GAGGTACAGGTGAATGCCANNCTAGTCATCTCCCATGAAGAANAATTAATNCCTTTGCAC
AAATCCATTCTTCTGATCCAGAAGAAAGAAAGCAGTGAGTGATTTATTTCTCCATTGT
AAGATTTTTGTTATTCAATAATTGCAATGAATGTGCTGAATTTTTATGGTGTATTGGCT
AGTTTTGAAAAAAGGAAGAAATAAGCATATTATTTTGAAGTTCTAATGACTCACG
TTTTTCAAAATTAATTTTTCAGTTAAGGCAATTACAACTTATCATTAGTTATTAAC
Sequence 836
GGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTCAAGGCCCTAATCTCAATACCAT
CACATTGGTGGTTAGGGCTGTAACTTGGGATATGGGGCAAGACACAAACATTCAATCCA
AAGCAAGCATGTCCACACTGTTGGGACTCCAATCCCACTTTTGCAATTGAGTCATTATTTA
ACCACTGTACCT
Sequence 837
GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAATTTTAATTTACAACCTGTTG
GAAATAAAAATCACTTAATTTTTTCCAGTGCTTCTCCCTCATCTGGTTATTCAAGAAAA
CAAAACAGTCTCTGAGATATTTAGCTTTTCAAACCTGTAAATAGATGCTCTAGTGTTATTT
ATTTTTTAATCCCACTTGATTATTTTACCTCTAGAGCATCTTGATTAGGACATGTTAT
ATTTATGCCAGTGGGAAATAAGTTATGGCCAAGTTTTGCAAAAACAGGAAGCAGTGAGAT
ACTGTTTTTTTCTCCTCACTAAATATCAGTAATTGTCAGGAATGGTATTACCTATTTTC

Table 1

[illegible]

Table 1

AGAATCATAAGGAAATGTGGCAAAAAGGATCAGTGANATTAAACAAAAAAGCNTGGAT
AAGGCCAAAGGAANAANAAGGCATCAAAAGGAGTTTGNNTNCAATGGAGGGCANTTTGC
CNTNGAAAGNCTTTCCNAGNNGGNTTTTTNAAAAANACNTTNGNTTTAAAAAATTNAAA
AANTTTTTNGGGNCCCCAGCCTTTNANCCCCTTGTANCCCNNGTCTTTTTTCCCCCN
CNTNCCCTTGGNATTTTNNAAANTTCCCCNNGGGGGG

Sequence 846

ACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACATTTCTAAGTATCACA
TGACTTAACAGGTGCAAGCTGGCAGGCATCGGACTTGGTATCCGTAAGACCTGTTGCCCC
TTTGCCCTTCTGCCATGATTGTAAGTTTCCCGAGGCCTCCACAGAAGCTGAACAGATGCCA
GTATCATGCTTCCTGTATAGCCTGTGCGCTTTGGGCAGCTGGACACCTCACCCACGCTTC
AGGCTGGAGCCTTCCTCATCTTTATTAGGTGTCTTAGAGGCAAGTGCCCGAGGTAACATC
CTCCTCTGCATTTCTACACTGACAAGGAGAATGCTGTGGCTCTACGCAGTCATCCTTTT
ACAACCTTTTTTGGCAGGGAGCAAAAAGTCTTGNACATNAAAGTGAATGAAGTACCTTGC
CCCGGGGCGGGGCGCTTNTANAACTAAGTGGGGATTCCCCCGGGGCTTGGCAGGGAA
ATTTTCGAATTNTTNAAGCNTTTAATTNGATNACCCGGTTCNAACCTTCTAAGGGGGG
GGGGGGC

Sequence 847

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGCTGTGTAGCAAAC
AGCCCTAAACCAAGTGACTTAAACAACCATTTTCTTTGTTACAGTTTTGCTTTCCTGGG
TTGGGCTCAGTTGGGCGGGTTTTGCTGGTGATCACTCTAATGGCTGCTTTTCTCTCCAAG
TAGCCTTCCAGCAGAGTTGCTGGCCTTACCTGGTAGCTGATGGCTTAGGGCTCACAAGA
GTACCT

Sequence 848

CCGCGGTGGCGGCCGAGGTACGCGGGGTGCGCAACTTTGGGAACCACCAGTAGGATGTGG
TTAAGATTCAAGTTCTTGCTGAGCTAAGGAAGCATTTCTCACTTCTTTTAATTGTCTGGC
TCACTTCTAGTCCCTAACTAAATGCTCACTCAAGAGTTTTAGCTTGAATGTCAAATGTCA
AAAAATTAATTGGGTGATCTTTCTCCATTTCTAGGATAAGAAGAAAGAGAAGAAATGAAG
TGACCATCCAGCCTTTCCCAATTAGACTTCTCTCCTTCCACCCCTCATTTCTTTTTCG
ACACATTACAGGTGGTGTGTTCTGTGATAATGAAAAGCATCAGAAAAGCTTTTGTACCTG
CCCG

Sequence 849

CGACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTGTTTTAAGC
TTAGTTCAAGTCTCAAGTGTTTGCAGCCACATCTGAAGACCAATAAAGCAACTGCTGGTTT
ATCCTTTGGGAGCTGACAGAATTTCTTCTCCCAAATACATACACAGTAAATCATAAGCC
TGGAATGAAGAAAAAAATCTTACGGGCAATGCAATGGCTGCAAACTATAAGGATTAG
AAATGTGAACCCACATTTTAATCCAAATTAGGGCAATTAGAGGTGGTAGCCGTAAAGAA
TAGCTTGCTGTAATATACGCCATGCCTGGATACANAAATTGGGCTTTTGGCCCTTGTCAA
AAAAATTAATTTGTCCTTTTNTGTATTGATGGGTGGGGCATGT

Sequence 850

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGGCCTCTCTG
GGATAGAAGTTATTAGCAGGCACACAACAGAGGCAGTTCAGATTTCAACTGCTCATCA
GATGGCGGGAAGATGAAGACAGATGGTGCAGCCACAGTTCGTTTGATTCCACCTTGGTC
CCTTT
TT
TTTTTTTTCGCGCTTGGCCGTAATCATGGGTGATAAGCTGTTTCTGTGTGAAAATTGTTT
ATCCGCTCACAATTCCACACCAACATACCGAAGCCCGGGGAGC

Sequence 851

CTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACCAGGCAA
AGTTGCTGCCAACACTCTGACTT
TT
GTAGCAGGAGGAAGAGAAGCTGCGCTGGGGCTTCCATGGTTCGGTCTGGGTCTTAAGTGA
GCAGTTCTTCCCCGCGTACCTCGGCCGCTCTAGAACTAGTGGGATCCCCCGGGCCTGCA
GGTT
CCCCAAGCTTTTGTCCCTTTAGTGGAGGGGT

Sequence 852

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGCAAAGT

Table 1

[illegible]

Sequence 853

CCGCGGTGGCGGCCGCCGGGCAGGTACCAAATGGCTCACAAAGCCCAAAATATTTACTA
TTTGCCCTCTTACAGATAGTTTGCTGACACCTGACATATAGGAATGGGGACATTGCTTC
TCACCACCCCCAGCTCTCTCACTGGATGGTCCATGTATACAAAGTAGAGCCCTTATTTAA
TGCAAAAGATGTTGGCTTAAACCCTGCTTGATAGGATGATTGAGTAAATTCAGAAAGTGG
TAATGAGGGCTGGGTGGCGGTGCCCTCACTCTATAATCTCATTACCTTGGAGGCCAAAG
GNTGGGCAGATCGCCTTAGATCAGGAGTTT

Sequence 854

Sequence 654
GAGTNCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACCTT
TAAACTGTATTGTATTCATGTTGCTAAACAATATTGGCCTTCTCGATGATTTTATTTCATG
TTGCTCCAAAGTTAAAACCTGTAGAACTAAGTAGGTGAAGAGATATTTTGTATAAGTGC
CACAGAAGAGAAAAATAATAAATAAATAGTGAATTGAGCATCACTAGAATAAAATAAA
ATGATAGGACCTTCTAAGATGTGAAATGATCACCTAAGATATACATGCTCCAACCATAT
TGATTTTAGAACAAACACAGCCGCCCATACACAGGTTTGTGGCCCTCTACTAACTGGT
CCTCTGCTTGTCCCCACTAAGAGGGTTAATGGGTTTCTT

Sequence 855

[illegible]

Sequence 856

ACCGCGGNGGCGGCCGANAGAAAGACAAAGGTGTCCAAGAATCTGCTGCGCATGAAGTTT
 ATGCAAAGGGGACTGGACTCAGAAACCAAGAAACAAGTAGANGNAAGAAGGAAAAAGTAAA
 ATTCACTTTAGGTGGAAGGAGGCACCTGNGGTGCTCTCNGGCNCGGCCCATTTTTTTTCC
 CCNCTTTTTTTNNAAAAANGGGGNGGGGNCAAAAANAAAAAATCCCCCCCCCTTTTTT
 TTAAAAAANGGGGGGCTTTTTTTGGGGGGGNGGGNGGTTNNTAAAAAATAAT
 TTTTTTGCNCCCCCTNNCCCCCTTTNTNTNTNCCCTTAGNCCCAATGTNANGGG
 GNTTTTTNTTTTTATNCCCCCCTTTTTTTTNGGGGGGNGGCCNCCCCCAAAAAA
 NAANTATTTGTTGGGGGGGTTTAANAAAAAATAATTTTTCTCCTNTCTT
 TTTNNNNCCCCCCCCCGGGGGGGNGGGGAANAAAAAATTTTTTTTTTTAAAAA
 AAAAAA

Sequence 857

Sequence 637
GCGAGGTACACCTGCCCCATCCCGGATGAGCTGACCAAGAACCAGGTCAGCCTGACC
TGCCTGGTCAAAGGCTTCTATCCAGCGACATCGCCGTGGAGTGGNNAGAGCAATGGGCA
NCNCGGGAGTAAACAAATCTTACAAGGAACCTCCNAAAAAAAAAACCCCCCAAAAAANCC
CCCTTACCCCCCTTTTTTTTTNTNATAANNNCCCCCGCCCCCAAAAAANTTTTTTT
GGGGGGGGGNNCCCCCTTTTTTTTTTNGGGGGGGGGGGGGGGNNNNNNAAAAAACA
CCCCCTTTTTTTTTTNNCCCCCCCCCCCCGGGGGGGGNGTTAAAAAANAAAAACCC
CCCCGGGGGGGNGGGGGGGGGGGGTNGCCCCNTTTTTTTTTTTTTCCCCCCCCCCCC
CCCNNTTTTTTTTTTTTTNCTCCCCCTTTTTTTTTTNGTGGNTTTTTAANNANNT
NNNNNTANACCCCTTTTTTTTTTNCCTTTTTTTTTTTTTTAAAAA
AAACCCCCCCCCAAAAAAGGGGGGGNTTTTTCCCCCCCCCTATAAAAAAN
TTTINATTGGGGGGGGGGGGGTNTGTCCCCCCCCCTTTTTTTTTT

Sequence 858

AACACTACTATAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCG
GGGGACGCGCGTCTGTGGAGAAGCGGCTTGTCGGGGGTGGTCTCGTGGGGTCTGCCTG
TTAGTCGCTTTCAGGGTTCTATGAGCACCTTTCACAGACCCGTTACCAATGGGTAAG

Table 1

TTGTNACACCCAAAAATTTTTNTTTTTTGGGGGGGGANNCCCCNATAAAAAAGNGG
NNNTGGTNCCCCNCNCCCCTTTTTTGNNGGGGGGTTTTTTTTNAAAAAATAAATNA
AAAAAATTTTTTGGGGGTNTTTTAAAANTTNAAAAATTNNNANCATTGNAAAAAT
TTTTTTTTAAAAAAATTTT
Sequence 859
CCGCGGTGGCGCCGAGGTACCAATAAGCATATTGCTTTGGCAATGCATNTCCAGAGCAG
GTGACCCTGGCCGCTGTCTGGGGACACTGACACCNTAGGGTGGCTGTGTGTCAGTTCATA
GGGAGNGTACTCACNAGCCCTGTTGGCACTANTAGNTGNAANGTATTGGGTGGGGNTTA
GNGTTTTTGNNGGTTTTAAAAAAAAGGGGTNTTNAAAAAAANAAAAAAGGGGGNTTTT
TTTTTTTTTANAAAAAGAGGGGGGNGNAAAAAAATTTTTTNNNGGGGGGGGGGGGG
GGNTTTAAAAAANTTTTTTTTTTNNCCCCCCCCCCCCNAAAAAAGNGGGNGG
GGGGGGNGTTNCCCCCCTTGCCCCCCCCNAAAAAATTTTTTTGGGGGGNGGGG
GGGNCNCNTTTTTTGNNGGGGNTTTTTNAAAAAANGGGGGGNGNAAAAAACC
CCCCCAAAAAAANCCCCCNGGGNCCCCCCTNNCCNCNCAATNAA
AAAAAANGGGGTTTTTTTTTNAAAAAANAAGGGGGGGG
Sequence 860
TCGCACTCATTTACCGGAGACAGGGAGAGGCTCTTCTGCGTGTAGTGGTTGTGCAGACC
CTCATGCATCACGGAGCATGAGAAGACGTTCCCTGCTGCCACCCTGCTCTGTTCCACC
GGTGNAGCCTTGGCTGTAGTAAAAAGGGTGGGGNTTTTTNAAAAAAGGGGGGNG
NAAAAAAGGGGGTGTGGGGGNTTNAAAAAAAGGGGGTTTTCCCCCCTN
TCNCCCCCCCCGGGGGNTTTTTTTTTTNNCCCCCGGGGTNGGGGGGGGTTN
ANAAAAAANGGGGGTNTTTTTTTTTTNNCCCCCCCCCCCCCAAAAAAANAGN
GGNGGTTTTNCCCCCNNTAAAAAANTCCCCCCCCGGGGGNTNTGGGGGGTTTTNTN
TTTTTTAAAAAANNNNNNTTNGGGGGGGGNTTTTTCCCCCCCCCGGGGGGGG
ATTTTTTTTTTTTTNNGGGGNTTNNNTGGGNNNAAATTTTTTTTTTTTTCCCC
CCCCCCTTTTTTTTTNNNTTTTTTGGGGGGGGGGGTTTTTTTTTTTTTAAAA
Sequence 861
CCGGGCAGGTACGCGGGGGAAGTCTCAGTTAGGACCCANACGGAACCATGGAAGCCCCA
GCGCAGCTTCTCTTCTCCCGCTACTTCTGGGCTCCCAATACTCACCTGGNAGTAAAT
ANGTGGATGACCTCAANTTCTCNCAAGNNCCCCNTACCCCCNAAAAATGNCCCCNG
NNCCCCGTGCCCCCANTTTTTTGGGGGNGNATTTTTTTTTNCCCCCTTTTTTTGGGG
GGGNTTTTTTTGGGGGGGGTNTTTTTTTTATCCCCCCTTTTTTTTTTTNCTT
AGAACCCCCCAAAAAAANAANNATNTTTTTTTTTTGGGGNNTTATNGGNTNTTTN
CNAAAATTTAAAAATNTTTATAGGGGGGGGNGNGTGNAAAAAAGGGGGNGGG
GGTCCCCCCTTNNCCCCNAAAAA
Sequence 862
GCGAGGTACGCGGGCATCCAGCAGAGAATGGAAGTCAAATNACCTGAATTGCTATGTGT
CTGGGTTTCATCCATCCNACATTGAAGNTGACTTACTGAAGTAATGGGAGTAGCAGGAAG
TTGTAACAAGGTGGGNAGACATATGCAAGCATCTTNGTTTTNNNGNCCCCNTTTTT
TTTTTTAAAAATTTTTTNGGCCCCCCCAAAAAAANNGGGGGGGGCCCTTTAAAA
AANACAAAAAAGGGGGTTTTNGGGGGGGGNTTAAAAAACCCTTTTTTTT
TTTTGGGGGGGNGGGGGGGGNTTTTTTTTTTTTTNCCCCCCTTTTTTTGTTN
TNNNTTTTTTANGNCCCCCCTTTTTTTTGAAAAAATTTTTTTTGGGNCCCCC
CCTTTTTTNAAAACCCCCCTTTTTTTTTTTTTTNGGGGGGGGCCCTTTTTTTTT
AAAAAANAAAAAACCCTTTTTTNNCCCCCCTTTTTTTTTTNGGGGGGGGGGNTN
NCCCCCATNGTGGGNCCCCCCCCGNGGCCCCCCCCCCNGGNAAAAAATGGGGGNTT
TTTTGTAAAAAANGCCCCCCCCCCCCGGGANANNANTGNGGGGGGGGNGTATTNATT
TTNCTNTTAACCCCCCCCCCNGGGGGGGG
Sequence 863
CCGGGCAGGTACTTTGGCCTCTCTGGGATAGAAGTTATTCAGCAGGCACACAACAGAGGC
AGTTCCAGATTTCAACTGCTCATCAGATGGCCGGGAAGTATGAAGACAGNATNGGGTGCA
GTCTCACCAGATTTCCGTTTTGNATTCCTTTTTTNNCCCCNGNTCCCCNAAAAAAGGG
GGNTNTNNCCCCNATTTTTTTTTTTTTTTTGGGGGGGNCNNNGGNNNAAATTTTTTT
TATAACCCCTTTNCCCCCAANNCCCTTNTATCCCCCTTTTTTTNNGGGGGGNGGGGGG
GGGANNTCCCCCCCCNCCCCCCCCNAAAAAGNTAAAAATTTGAAAAANATTTTTAA

[illegible]

Table 1

TGGNGTTTTTTCCNCCTTTTTNNCCCCNTTTCNCCCCGGGGGGGGGGGGGGGNT
TTTTTTTTTTTATAAAAAATATCTCCCNNTGTCCCCCTCTNGTCTCCTNAAAAAAA
NAGGGGGGTNGTNNNCCCCCCTTTTTTTTATTTATNGAATTTATNGGATATTANNG
GGGGGGGGGNGGGGGNAGTTTTTATATAATTTTTTANTANACCCTNTNTNTTTANT
CCCCCNATATACCCNCCGAAAATTTTTTTNTNTTTTTTANGNGGNGNTTGTCTAN
AAAAAAGNGGGGGNNTGTTTTTTTTT

Sequence 869

AGGTACGCGGGATGGCACATGCAGCGCAAGTAGGTCTACAAGACGCTACTTCCCCTATCA
TAGAAGAGCTTATCACCTTTCATGATCACGCCCTCATAATCATTTGNCCTGTATGCTTGG
NTTCCTTAGNGCCCTGTTATNGCTCCNGCCCCCGTTTTTTTTNTTTTAAATTTTTTANTT
TTTNNCCCCCTNCCCCCTTTTTTTTTTAAAAAANNNACCCCCCNAAAAAAA
NCCCCCCCCCTTTTTTTTTTCCCCCCTAAAAAANNNACCCCCCNAAAAA
AAAANGNCCCCCCTNTAAAAAGGNAAAAAATTGNNAAAAAATTNAATAANNTACCC
CCCCCTTTTTTTTTTAAAAAANNNACCCCCCTTTTTTTTTTAAAAA
AAAAAAGGGNAAAAAGGGNCCCCCCCCCCTAAAAAATTTTTTTTTTTT
CCCCCCCCCTTTTTTTTTTCCCCCCTAAAAAAGANGGGGNGGNTNGGN
ANAAAAAANNNCCCCCCCCCGGNGGGGGGGGNGGGGNCNNCCCCCTTTTTT

Sequence 870

GAGCTCNC CGGTGGCGGCCGAGGTACACTTTTGGCCAGNGGACCAAGCTGGAGATCAA
ACGAAGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAAGCAGTTGAAAT
CTTGAAGTGCCTCTGTGTGTGCTCTGCTGAATAACTGTCTATTTNNCCCTNCCCCC
CCCCNAAAAGGGGNGNAAAAANGGGNAAAAAGGGNNGGGGNTCCCCCNCCCCCA
AAAAAAGGGGNGGCCNAAAAANCCCCCCCCCCTNNGGGGGGGGGGGTTTANAAAAA
AAACCCCCCCCCCTTTTTTTTGGGNGNANAACCCNTNNCCCCCCCCCCTN
NNTTTTTTGGGGGGTTTNNNTANTTNNNCCCCCCCCCGGNGNNGGGGGGGGNGNAAAA
NCCCNCCNCCCCCCCCCGGGGGGGGTTTTTCCCCCTTTTTTTTTTCCCCCCCCCT
TTTTTTTTT

Sequence 871

TACTAGGGCAATTGGAGCTCNC CGGTGGCGGACTTTTGGCCAGGGGACCAAGCTGGA
GATCAAACGAAGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGNT
GAAATCTGGAAGTGCCTCTGNGNGNGCCCTGCTGAATAACCTTCTATCCAGNAGAG
GGGGGGGNGCCCCCCCCCCCCNAATTTNAAATTTAAAGGGGGGGGTTTNNNAAAAATC
CCCCNCCCCCTTTTTTTTNCCTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GGGGGNGCCCCCTTTTTTTTCCCCCTTTTTTTTNNAAAAAAGGGGGGGGAAAAA
AAAAAANCCCCCTTTTTTTTTTAAAAAANGGGGGTTTTTTTTTNGGGGGGGGG
GGGGGGGGGGGAAAAAANTTTTTTTTTTTTNNCCNCCNCCCCCCCCCTTTTTTTNAT
ANATANCCCTTNNCCNCCNAAAAAANGAGGGGATTTTNTNTTTTTTNNCCCCC
CCTTTTTTTGGGGGGGGGNGGCCCCCCCNCNAAAAAANGGGTGGGGGGGGG
G

Sequence 872

CCGGGCAGGTACCTGGATCTTCCAAGCACAGCCACTTNTGTGAACATCCCTGACCTGCTT
CCTGGCCGAAATACATTGTAATGTCTATCACNATATCTGAGGATGNGGGGAGGCANNA
GTTTNGATTCTGTTTATACTTTACCAAGGAAATNGAAAAANNNCCCCCTAAAAA
AAAAAANCCCCCCCCNAAAAAANGGGTNGTNTTNNCCCCGGGGNNTNNNTCCCC
CCCAANCNCCCCCTTTTTTTTTGNGGGGGGNNAAAAAANTTTTTTNGGGGGGGGG
GGTGTGCCCCCCTTCTCCTCCCTCNCNCCANNTAACTAANAATTTTTTTNTTTTNA
AATAATCCCTCCTTTTTTTTTGNGGGGGGGGGGAAAAAATCCCGGTGTTTNC
CNNNNCCNNGGGGNGGGGGANAANAANAAAAAANCCCCCTTTTTTTTNGGGGGGGG
NTTTTTT

Sequence 873

CTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGCTGCTCAGTTATGGACCCAGA
GGGAACCATGGAAACCCAGCGCAGCTTCTTCTCCTCTGCTACTCTGGCTCCAGATAC
CAGCCGAGAAAGTATGTGTTGATCGCANTCTTTCAGGGCCNAAAAAGCCANACCCCG
NTCCCCCTTTTTTNGGGGGGATTTTTTNNCCCCCTTTTTTTTTTTTTTTTNGGGG

GGGGGTTTTNTNTCCCNNTTTANTNCCCCCCCCCCCCCAAAAANNNAAAAAGGGGGCCCG
GGGGGGGGGGGTCNANAAAAAATAAAAAATNGGGGGGGGNANAAANGNGGG
GTNTCCCCCCCCCCCCCNAANAAANNCCNGGTNCCCCNNNNCCCCCTTTTTTTTTT
TNTCCCCCTTTTTTTTTCTTTAANCNTNCGCCCCNTTTTTTTTTGTGGGGGGGGGG
GGTGTTTTTCTTTNNNCAAAATAAATGNAGGNGGGGGGGGNTTTA

TACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAAGTCAGGTTGTTCAATT
TGAGCCAACAACAGATTTCTTGGTTATTGTGCTATTGCCACACCTGGGTTGGTGGTTTTA
TAGCCATTTCCATCATCAGTTTCCTGTCTCTGCTGGGGGTTATCTTAGTGCCTCTCACGA
ATCGGGTGTTTTTCAAATTTCTCTGAGTTTCTTGTGGCACTGGCCGTTGGGACTTTGA
GTGGTTCGAGCGGCCGCCCGGCAGGTAATCATCTCTGCTATACGCGATCACAATAT
CCTCTAGTTCCTCCATCACAGTCTGCGCACATTTTGGTCATCAGCTGGGAGAGCACGGCT
GTCAATTTGGGGTTTTTGCAAAGTTGTGCTTCTCAAGCAAACCGATGGG

[illegible]

CCGCGGTGGCGGCCGCCCGGNCAGGTACATCAAATCGACTATGCCGAGTTGTGCAGCGTA
NCAAGGAAAAAGGGAAAATCAGCTCCCTCGTGAAAGATGCTTCTGTTCTCTGATTGATG
TTACAACCTCCCTCAGCTCCTCGAAAATCTCTGATACCTCTCACTATTNTACTGCTGGAA
GCTCAAGTGTGAGGAGATAAAATCTGCNGGACATNAAGGAAGATTAGAATTGGATCCAN
AGGAAACAGCACCTGTTTATGGGTATCCTCATTAAGGGC

[illegible]

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTGCAGTATACAAGGA
CTAACAGTTAATATTGACCCAACTCTATATACGTGGCTCATCTACAGCCCTCAGAAACGA
ACAAGTAGACATATGCAACGACGCGCTGTGGTAGCTGTTCTCTTGTATGCCAGTTTGT
AGAAGGAAAGAGGATGAGGTGTCTATTGGAAGTGCCCCCTTTGGCAAGCAACAATCATAT
CAGGCCTCTGAATATGCCAGCAGCCCTGTAAAAACAAAAACGGTAACAGGTTGAAGAAAG
TTCTCTGGATAATATCCTGAAGACTATTTTCCAACCTTGTTCCATTTTCCANGGTCA
CTTTTCA

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCCAAAG
GCTGGAAGAAAATTGAGCCAAGAGCTGGAAGCCAGAAGTTCCTCCATGCCTGCCCTACACA
TCCAGGCTCTGAGTTTTACTTTTTCTACTATAATGCCATGCAAGTAACCTTTAATTTGC
TTCTCTGTTCTCTGTCACTGAGAAATACCATGTCTCCATGGCAATAGGAATGCATTTACC
TTCACCAAACCTGCTCAAATCCTTGCTGAACAGGACGTAGCAAGGAGTTGACTTTCCAAT
GGTGGGAGGTTTCAGAGTACCTGCCCGGGCCGGCCGCTCGAGGGGGGGGCCCCGGGTACCC
AGCTTTTGTTCCTTTTAGTGGAGGGGTTAATTGCGGCGCTTTGGCGTAAATCATGGG
TCATTAAGNCGTGTTTTT

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGTGAAATATT
CTTGGAATATCATTACAGGTGGACTTTGGCATATAATCAAATAATTTGATTTCTACTAA
CTGTTGAAGAACTTTGTAGCCACTTTGCTTATTCATTACATTTTGGGTGATCTTAAGCG
CACATTAATTACCCTGTCTGTTAGCATGTCTTGCTGTCATCTTGAATATTTGTTGT

Table 1

AATTCAACATTTATTTTCCCC

Sequence 887

ATTGGTTCTCCCCGCGGTGNCGGGCAGGTACAACCTTTAACTGTATTGTATTCATGTTGC
TAAACAATNTTGGCCTTCTCGATGATTTTATTCATGTTGCTCCAAAGTTAAACCCGTGA
GAACTAAGTAGGTGAAGAGATATTTTGTATAAGTGCCACAGAAGAGAAAATATAATNAAT
TTAAATAGNGGAATTGAGCATCACTAGAATAAAATAAAATGAGTAGGCATTCTAAGATG
TGAAATGATCACCTAAGATATACATGCTCCAACCATATTGATTTTAGAACAAAACACAGC
AGCCCATAAACAGTTTGTGGCCTCTACTAACTGCCTCTGCTGTCCCATCTAGAGGGTTAT
GTTTCTCTATTTTAAATAAAATGTAGTTAAATTAGCCTGACGGGATGTTTCTCTCT
AT

Sequence 888

CCTATAGGGCTNTTGGNGCANACCCCGGTGGCGGCCCGGGGCTGGTACTTCCTTCTT
TTTTATGACTAAATNCTACTCTATTGTATGGACATGACACATTTTGTAAATTGTATAG
GTATGCCATACTTTAAGTTTGTCCATAAATCACTTCATTAAACATTTGGGTTGCTTCCAC
TTTTTGGGTAATTAATTAATTTAATTAATTTATTTATTTTGTAGATGGAAGTCTCGAAAAA
AAAAAAAAAAGAATGTGTATCTACCCGCAGTTGTGAGGCGCAGTATCCATATATGTCATT
TAGGTCAAGTTTGTGNTTTCAACTCTTCTGTATTTTACTGACTTTTTTGGTCTAAGT
TGTTTAATCATTCACTGAGACAGGTGTGTTAAATCTCTCATTTGGGGTGATGATTTATCTA
GTTCCCATTTTAATT

Sequence 889

AGGTACCTGCAGGCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTGACCGCGATGAT
GTGGCTCTGGAAGGCGTGAGCCACTTCTCCGCGAATTGGCCGAGGAGAAGCGCGAGGGC
TACGAGCGTNTCCTGAAGTATTGCAAAACCAAGCNGTGGCGGCNCGNTCTTAGAAAAGTA
GTTGGNATCCCCCGGGCCTGCCANGGAAATTTCCGAATAATTCAAAGNCCTTTATTGNG
GATTACCCGGTTCGNACTCTTNGTAAGGGGNGGNGCNCNCCCGGGNTTACCCCCAAGCNT
TNTNTTTGGTTTTCCCCCTTTNTAGGTTNGNAGGGGGGTTTTAAAATTNTGGCNGCCCG
NCNTTNGGGTCCGNTNAAATTNCAATTGGGGGATNCNANTAAGGCNTTGGTTTNTCCC
CTTGGGTGGGTTGNAAAAAATTTGGTTTTTAATTCCCAGCNTTTCCAANCCAAATTT
TTCCAACCAANCCAANACCNATTTAACCCGGTAAGGNCNCCCGNGGGGAAAGNNCCAAT
TTA

Sequence 890

GGCCGCCCCGGGCAGGTGCTCGTCTGATCTAGATAGTGAGCGGACGCGTGGGTGCACTCAAG
ACTTTTAAAGATTTATCAAAATTTGGTGAGCCGAATCTCAGAAAATTGGTGAATTCGGTT
AGTTCCCAATAGGCCGAGTAGTAATAAGTGAGTGTTGGGATATAGAAAAATTTTAC
GAATGGAATTAATAATTTCTAGGCGAATTCAGTGAGTTCCCAATGGGACATGATTGTATGA
GTGAGCTTTTCAATATATAGCAACATTTTAGGTTCAAGAACTTAAGTATCATGGTGAAT
TCAGTAGGTTCCCAATAGGATTGCGATGTAATAAG

Sequence 891

CCCTTTCGAGCGGCCGCCCGGGCAGGTACAACATGTGCCACGTCAACACACAAAACCAA
AGTCTGCTCAGAGAGGTGGGCTATGGTGTGCAGGCTGCAACCTTCTCTGCAATTGTTAA
GTCTTCAAAAATCTGAGTTCCTCACATAAAATTTCTGTGCTGTGGCCAGAGCTCGTTTTAC
CATTTTCTTAGATTGGATCACTTTTAGGATCAGCTTCGTTGTTCTTTGCGTAGACAAATG
ACTCTCACAGCTTTCTCCAAGTGTNCCAGAAGCACTAATTACTGAAAATAGAATCTCAT
CAAAGCTTAACATATTCACCTCTGAAAACAGCGGANCTGCTGGGTGCTTAAGGAAAGCTG
ANAACCTNAAACCTGTGGAAGGAAAACCAAGTGACCACTTGGGGCCTTATAAAAGTTTGAT
TGGCAGGTGANGAAGGGGATCTCAAGAGGAGAATCCCNAAATTTCAAAGACATGGGAGAT
TTTGTCCCTAAATGTTTTATACTAGTGCTCTTGNNAATGGAAAACCT

Sequence 892

CCGGGCAGGTACAACATCCACACCAGAAGAGCAAGACTTAGAAATGGCATCAGAGGGAG
AGCAAAAGAGGCTTGAAGAATATGAAAATAACCAAGCCACAGGGAGAGAATGGGTCAATAA
ATCAACCCAACTGGCTATCAAGAGAATTATACCTTGCAAGATGGCACCTTTGGTATTAGC
GTACCT

Sequence 893

AGGTACCCCAAGCCACATGGCCTTCATCCTTATGACCTAGCAGGCAGAACAGGGACCAAGC
AGCTTCTATTTTGTCAAACCTCTTTGGACAAATATTCAACATTCAACAACAAGCTTTGTA
AACCTAACGCTAAACAAGTCATGGCAAGCAAACCTGGATTTTCTTAAGAAATGAGGAAAAAG

Table 1

TGCAAGTGATCTCAGTACCTGCCCCG

Sequence 894

AGGTACTTCTTTGCAGTATACAAGGACTAGCAGTTAATATTGACCCAATCTTATATACGT
GGCTCATCTATCAGCCTCAGAAACGAACGAGTAGACATATGCAACAGCAGCCTGTGGTAG
CTGTTCTCTTGTATGCCAGTTTGTAGANGGAAAGAGGATGAGGTGTCTATTGGAAGTG
CCCCCTTGGCAAAGCAGCAATCATATCAGGCCTCTGAATATGCCAGCAGCCTGTAAAAA
CAAAAACGGTAACAGAATCCCGTCCATTGTGAGTTCTGTAAAGCCATGTTGAATATAT
CTGAAAGCTGTAGAAGTCTGAAGAAAGAAATGAAGGAATTTATTGGA

Sequence 895

CCGGGCAGGTACTTACTTGATGTGACTCTCCTCTCATGCCTGGGCCCTGCTTACAGGTGT
GATTGTGACACATAGCTTGGCCTAGCCCCTAGGTTATGTTACTCTCCTCTTATCCTTCAG
TTATTTTACAAGGGGCATTGTGACATATTGCTGGACTGGGAACCCAGGTGATGTGACTC
TCCTCTACTGCCTGAAATACAACCAAAAAAAAAAAAAAAAAAAAAAGGTCCCT

Sequence 896

NGNGGCGGCGGAGGNACNNNNGNCANTTGNTGGGGGGGAAGNAAAACCCCCCCCCCNCA
CANAGGCAGNNCCAGANNNCAACNNTTANCAGANGGGGGGAAGACCCCNACAAAAGGN
GCAGCCACAGNNCGNNNGANCNCAGCNGGNGCCCNAGCAAAAGNGNACCNGTTTTNN
CGGCCNTTTTTAGAACGNGGGGGGNCCCCCCCC

Sequence 897

CCGGGCAGGTACGCGGGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAG
AAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGCAAT
GTGATGGTGTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAAGAAGAGGCC
AGAGAGCTTGCGCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAAC
CTGCAAGAGGACCTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGGCTTCCAAC
TTCCAGAACTGTGAGAAGTATATGTTTGTGGTTTAGTCAATGGTCTATGGTAATTT

Sequence 898

AGGTACGCGGGGACGCGCTGTGTGAGAAGCGGCTTGGTGGGGGTGGTCTCGTGGGG
TCCTGCCTGTTTAGTCGCTTTCAGGGTCTTGAGCCCTTCACGACCGTCACCATGGAAG
TGTCACCATTCAGCCTGTAAATGAAAATATGCAAGTCAACGAAAAAAAAAAAAAAAAA
AAAGTACCTGCCCCG

Sequence 899

AGGTACTTTTTTTTTTTTTTTTTTTTTCAGGTCTCCAGGAAAGATAGTTAAGGCTATGCT
AGTGTAAGTCTTTATGGCTTGCATGGAACAGGCAGGCTACTGCTTCTGCTGTGTGGCC
TGGATCCTTTTGTGTAGATAAATACTGCAATAGGAAAGAAACACATATATAATTTTA
TTCTCCATTACAGCCCTTTGGGTTATAGTCTTTTCCCATATAGCAGATACTATACTAAA
AAAAATTGGGGTGGAGGAATCTTCACTGACATCACAAGGTGATTTTTGAATCCGACTTTT
ACAGTCTGAAATTGAGACTTCTGCCCTACTGCAATGGGAGTAAAAACCACCTGAACC

Sequence 900

AGGTACGCGGGGTGGCGCCAGGGATTGAAACCGCGCTGACGAAGTTTGGTGATCCATCT
TCCGAGTATCGCCGGGATTTCGAATCGCGATGATCATCCCCTCTCTAGAGGAGCTGGACT
CCCTCAAGTACCTGCCCCG

Sequence 901

AGGTACAACAGTTTTTTTAAAAGATTTCACTGACATTTGCAACAATTTTTTTCTAATTTCT
TTTGGTGCCATTTTAGTAACCTTAACAATTGCTTTAATAGACAAAACCTCAATCATGCATGA
TCAATCACAGGTGAGAAAATAGAGGCGTGCTTACTAATGGCAGCAAAAGGCTTCTGTGGG
GGTGTGCGGGATGGAACAGCTAGCTAGCTAGAAAGGGGCTTCTTTATAGAGGGACTCCAG
TGTCAGGCAGGGGCACTGAAATCTAGGGGTCACCAAGGGCCACAGCACAGGGGACTGAGG
GAGAATCCAGTGGCTGGAACCTCTCCTCACC

Sequence 902

ATGACATGGNTCAGCTTCGGTTTTAAAAAGGTGAGTGTCTATCTGGAAATTTCTACGTGA
GAGGTGATAGGAACCAAGAGTTTACTTCTTACACAAGAGGAACCTGGACACGCATTTTCAC
CACTTGCTGGAC

Sequence 903

AGGTACGGCCACAAGAGGGTAAGAAATTATCGCATGGTCTAATACCAATTTTCCCCCA
ATAGAACCTACCAAGAGATCGAGCAATCAAAGCGTTATCTGTCAAAGCAATTCGCTTCTT
ATTGATTTGCCATAACCACGCTTGTAGATTAGTTCATTTACTGACTTCAGATTGGGGTA

Table 1

CCTGCCCCG

Sequence 904

GCCGAGGNACGNNACNCCTCGTTCAGGGGANAAAAACCCANGCGNCCCCACGCCCNAACA
NGNNCCANAAGCTGTCCNCCANGCNCCCAGCCNGCCNCACNGNACAACGANNNCNCAGCC
CNGGANNGNNCNCACAGANCNGCNCANCAACNCNGGCNCCNGACCCNCNCTCCTTTGT
GACCCNAGCCCCANNCCCACCCCNCGCGAAAGNGACCACAGCNCCACCANGGCAAGGGN
NAGGAAGGNCCAAAGGGCNCNNCAGNGGGNACGNNCAGCNGGAGNGGCANCGAANNNGN
GCCNNCNCAGNANNGGGCAAGGNAAGAGC

Sequence 905

CCGGGCAGGTACTCCCTCCAGACATCCGTATATTGGCCTGGGCCCCCTGTAGAACCAAGCT
TCAGTGCTAGGTTGAGCTGCCTTGAGCGGACTTACCGCTATTTTTCCCTCGTGCTGATT
TAGATATTGTAACCATGGATTATGCAGCTCAGAAGTATTGTTGGCACCCATGATTTGAGG
AATTGTGTAAAAATGGATGTAGCCAACGGTGTGATTAATTTTCAGAGGACTATTCTTATC
TTGCTTCAAAGTACCTCGGCCGGCTNTAGAACTAAGTGGGATCCCCCGGGGCTGCAGGN
ATTCGATATCAAGCTTTATCNGATACCCGTCCNACCCCTCGAGGGGGGGG

Sequence 906

CCGCGGTGGCGGCCGCGCCGGGCAGGTACTGGAGGAGTGAGTCCCTATGCTGACCCCAATA
CTTGAGAGGTGAGAGAATGCTCTTTGGTTGTGCTACAAGTGCCCAAGGCCCAACAGTCC
TTTTCTCTACAGCTTCTCCTCTCCTTGACGGTGATTCTGGCGGCCCTTGATAGTTCACA
AGAGAAGTCGTTTCATTCAAGTTGGTGTATCAGCTGGGGAGTAGTGATGTCTGCAAAA
ACCAGAAGCGGCAAAAGCAGGTACCT

Sequence 907

CCGGGCAGGTACAAAGTGAGGAGGCAAGACAGGTGCACAGAGCATAGCTTTGTCCCATCT
CAGGAACCCCTGGGTCCACCCCAGCTCCTGATCCCAAGAGATACGTTTCCCGGGACTCCA
AGGAGAGCTGAAACACTGGTCAAGCTCAGAGCCCTGAAGCTCTTCCCACTCCCCGCGT
ACCTN

Sequence 908

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAATGAGGCTGTATTA
AGGAGAGTAACAAGTTCTAATTCTTGACCCATCAAATCTTAAGGTGAAGCTGAGGACCA
GGAAGAGAAAAGATGCTGAGAAAAGAAACATTGAAAAAGATGAAGATGATGTAGATCA
GGAACCTTGCGAACATAGACCCTACGTGGATAGAATCACCTAAACCAATGGCCATATTGA
GAATGGCCCATTTCTACTGGAGCAGCAACTGGACGATGA

Sequence 909

CGGGCAGGTACGCGGGGGAGTCCCTCGCCAGATTCCCTCCGTGCGCCGCAAGATGATTG
TGCGGGGCGCCCTCCGCCACGCAGCCGGCCACCGCCGAGACCCAGCACATCGCCGACCAG
GTGAGGTCCCAGCTTGAAGAGAAAAGAAACAAGTTCCCTGTGTTAAGGCCGTGTCA
TTCAAGAGCCAGGTGGTGCAGGGGGGACAACTACTTTTCATCAAGGTGCACGTGCGCGAAC
GAGGACTTCGTACCCTCGGCCGCTCTAGAACTAGTGGGATCCCCNNGGGCTTGCAAGGAA
TTGATATTCAAGCTTTATTGATACCCGTGACCTCGAGGGGGGGGGCCCGGTAC

Sequence 910

CCGCGGTGGCCGAGCGGCCCGCCGGGCAGGTACAGAGGTTACCCAGTGTGCTTACTTT
TAAATGATCTTAAGAAGCATACAGCTGATGAAAATCCAGACAAAAGCACTTTAGAAAAAG
CTATTGGATCACTGAAGGAAGTAATGACGCATATTAATGAGGATAAGAGAAAAACAGAAG
CTCAAAAGCAAATTTTTGATGTTGTTTATGAAGTAGATGGATGCCAGCTAATCTTTAT
CTTCTACCGAAGCTTAGTACCT

Sequence 911

AGGTACCAACTGGCCTCATCCTATATTCACTTTCCGCCCTGGGACCAAAGTGATATCAA
ACNGAACTGGNGGCTTGACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTNTGA
AAATCTGGGAACTGGTCACTNGTTGTGTGCCCTTGCTGG

Sequence 912

AGGTACCACCATGTGNAGGAGACTGCAAGNAAAGCTGTTATTCAAAGTAAGAACAGTCA
GCCTTGCTTGAGTCCTGTTTTATGCTTGCGTGTTCATACCAAAACACAAAGGCAAGT
CTTCATATCAGCACTTTAGTCTTTGATATCCAAGTTAGCTNGACTACTNGTACCTNGNCC
GGGCGGCCGCTNTAGANNTAGTGGATN

Sequence 913

CCGGGCAGGTACTATAGCTGTAAGGAGAAGCTGAGAAATGATACCCAGGAGCAGCAGGCT

Table 1

Sequence 924

AGGTACATATCACAGGATTAAAACTCCAGTTAAGCAACTGAGCTAATCATTGAAGTAAAT
TAAAAATACCAAGCTTCTTTAACCTATCAATGCTGTTTAGAAGCATCATCCGAACAAAT
AGAGATTTAGTTATAAATTGCTGGGCTACATTCTGTGATGAGAATTTTGCTTAGTACCAC
TAGAGGAAGAGAGACTAGAGGCCCAAGAAGANGGTGAAAGTAGAGCTATGTGCCCAAGAA
AACTTGTAGAGATGGAATAAGAACTGAAACAATAGTAGAAACACTTGCCCTGAAGAAAA
AGGATGGAATAATGAAATAGATTGATTTTGTAGCTGGTAGGGAAGAAAGTTAACATAGTCT
TAGTCGGTTGTGTTTTCTCAAGGAAGTGAAGCAGGATTAGTTTTAGAAAATTTGAAGA
AGGTAGTGAGAGGNTGAAGCCAGCTGGGTGAGTGAGGNCCTGGANAACTTTTNTCGN
ACCTGCANGCCCTTCTTANACCCTACCTTTTTTTTNGG

Sequence 925

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTNTNTTTTTT
TTTTTTTTTTTTTNNAGAACAAATGTTTATTTTTTGGATATAGACATTTAAACAT
TCATNTCCAAGAACAGCTTCAATCAGGTATACAATAAGAAATAGACTTTAAATCCTAATC
AGAAAAGGNAACAGAAATTTTTTGAATGCTGCTGTANACACTAGTGTTAGAAAAAAAGT
TTATAAATGGTTTTGCACCAAAAAATATGCAAAGAACTTGAAA

Sequence 926

GGCGGCCGCCGGGCAGGTACTACGAGTGAGTGAGGCTGGGAGGAACACCAACCTAAGCC
AGGGTAATGAGGGGGGACTCTTTACCCAGGACCCTGCCACTGGCCTTCTCTCTTCCAA
ACACAGGTTCCGGCATACCCAGGTGTGCAAGGCCTCAGCACTGAAGCATGGNNGGGGATCT
GGCACAAGACCCAGCCTGGACAGAGATCTTTGGTGTCTCTCTGNGGCCACCATCAAGTT
TTGAGTGTCTGAGCACAGCCCCACAGAGTCAGCTCTTCTGGCTCTGGCTGACAGCAGTA
TCTCCACGAAGGGCACAAAGAGNGGCACCTTTGTCATGTATAATTGTGC

Sequence 927

CCGGGCAGGTACTACGAGTGAGTGAGGCTGGGAGGAACACCAACCTAAGCCAGGGTAATG
AGGGGGGACTCTTTACCCAGGACCCTGCCACTGGCCTTCTCTCTTCCAAACACAGGTT
CCGGCATACCCAGGTGTGCAAGGCTCAGCACTGAAGCATGGTGGGATCTGGCACAAGAC
CCAGCCTGGACAGAGATCTTTGGTGTCTNTCTGTGGCCACCATCAAGTTTGAGATGCTG
AGCACAGCCCCACAGAGTCAGCTCTTCTGGCTCTGGCTGACAGCAGTATCTCCACGAAG
GGCACAAGAGAGTGGCACCTTTGTCATGTATAATTGTCCCCGCTTGGCCACTCTTTGAG
AGTTACAAGTGATGTAGTATGGAACAAGGTCTGTCT

Sequence 928

ATTTTTTTTTTTTTTTTTTGGCNGCTTTTCTGATTTTTTAAGTACTCATACAATA
GTCTGGTAAGTGGTNTTCTTTTAAGCAGGGAAGTCCNGGATTCAAATNCCTGATAATTA
AAGGATCTTTTGATATTTGGCAGTTNCTCTCACTAAAAGAAGTNCATTANCAGATTA
NAATGATTCATGAGAAATCTTGGNTAGTAAATATTTAATCCAGATTTTATAATTGCCTA
AATCTCTTTATAGGTTATTTCTTCAATATTTCAAGATCCTGAGTCAGCCATGCTTATAC
AAGCAAACTTTTATTTA

Sequence 929

CCGCGGTGGCGGCCGCCGGGCAGGTACTACCTCCTGGCAGGAGGCCAACCAACACAAAA
CTAGTGCAATAAACAAAACATACTAAGGATCCTCACAAGAGCCCATTCACTCCCCTG
CCACCTCCACAACAGCAGGTGCTTGATCCATGGCTGAGAGACCTGAAGACTTTCACATT
ACAGGACTCTATGCAGACTCCCCAGTACCT

Sequence 930

CCGCGGTGGCGGCCGAGGTACTTCTATGTCATCATGGGTCTCAAAGGTGTTGTCAAAT
GAAAAGATACTCAAACCTGTCACTGGAGATGCTGCAATCTATGACTGTTTTCTGCTTGT
ATTGATGATTATGAATGGCAGCTGAATGGCANAGTTCAGAGCCGGCGNCCCTGGGTTTT
GCTGCTTNATTTTTGTNAATTTTTGTACCCTGCCGGGNGCGGCTTTTTNAAAAAACT
NGGNNCCCCCNGGGGNNNGGGAAGNATTTTTATTTNTNTATTTTTNTNTCCCCC
CCCCCTNNGGGGGGGGGGGGGNGNCCCCCCCCCTATTTTTTTTTT

Sequence 931

GTAATTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAGATTCT
GATCACTGATAATCGACTCATCTGTTACTAATACTTCCCCATCTGGCTTTCTGCGCAGC
ACCTTCTCTTCATCACTGGCTTTCGGAGTCTTTGGGAGGGCCTCAGAGACTGTTCTG
AAGGGACATTACTTTCTACATGTGGGTACCT

Sequence 932

Table 1

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTA CTGTGCAATGCCT
CAGGTTGCACCTGACTTATATGCTGAACTACAGAAGGCACATTTAGTTTTATTCAAGGT
GATTTGAATTACAGGAAGTTGACAGGTGACAGAAAAATGGGAGTTTTTCTGTTCCATTC
ATCAGGCTCTGAATGGCTTCCATCCTGCACCACTCTGTACCT

Sequence 933

GTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCGGGGCTGGCTCC
TCCAGTGTCTTCTCAGTCCTGAGCAACAGTGCAGAGGTGAAACGGGAGCGCCTGGAAGAT
GTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTTNGGACCATGAAGTACCTGCCCG

Sequence 934

AGCTTTACCGCGGTGGCGGCCCGCCGGGCAGGTNCTTTCAAACAACGCGGTAGGCCCTTC
CTTTNGGGTCTGCCATGACAACGATACCCAGGTGGCAATGCTTGAAGCCGATGACCATC
TGCGTAATGNNCCATTGGACTNTGGGGGTATTCCATCTTTAAATGGGCCTTTNCGTGCC
ACCCATTACCTTNGGCCCGCTTTAAAACTAAGTTGGGATCCCCCGGGCTTTCAANGGA
AATTTTNGAATTTAAAAGCTTTATTNCGAATTCCTCCGGTCGGAACCCCTTTTNAAGGGG
GGGGGG

Sequence 935

TAGGGCGAATTGTAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTA
CTGTGTATCATCGC
AGTCTTGCTTTTTTGTAGTAATGGATTCTAGATTCTATGAGGATACCACA
ACCACCTTTTA
AAGAGTTTCTAAGGCCAGGTGCANTGCTTACGCCTGGGAGACCAANGT
GGGAGGATCAC
TTGAGCTCAGGAGTTTGAGACCAACTTGACCT

Sequence 936

NCCTACTTtagggcgaaTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACAAACAGAT
CGCAGATCCAGGTTTCTCAAACCTGGAGCATCTGCTTAATTTTCCATAAAATCAGTCTTA
TTCTTTCTGACAGCTCTGAGACTCCTCCGGCCACGACTAGGTGCTGTCTGAGGAAACG
GTGGAGGA

Sequence 937

AGGTACGGGAGAGACTCATAACTCTCCAGGCCAGTGCTGGGGGAACCCCTCATGGGAGC
AGCTGTAATGAGGCCCTGAAAACTGGACACTGCTGAGCCCTGACATCCAGACCTCAATGCC
CTGACTCAGCCCATGGCAGCGACCCCTTCAAACAGGCTCCATGTGGCCCTGTAATCAGGA
AAGACTAGAGCATCCAGGAGTGGAGATTTGATTCTGAGATGCTGGGAGTTGTTCTGGTT
CTTGCTCCTGTCTGGCTGGTGCTGACAGCCAAAAGCGGGGAGTTGTGTGAGCTTTGTCT
TCAGCACTAGAGGCTTCACTCAACCCATGAGAAGGGGATGCCCCAGGCTTGCCCATCACA
AGCACTGGCCAAGCTGACTTCCCGCTGCTGAGGGAAAGA

Sequence 938

[illegible]

Sequence 939

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGGGGGCCTGA
GAATTTACATTTCTAGCCAGCTTCTAAGTGATGCTGATGCTGCTAGTTTGGAGACCACAC
CTTAAGAACCACTGCTGTTGGTCTTGTCTGCACAGTAGATGCACCAAGGCAAATGTTTAG
AAGTACCT

Sequence 9:

CGCCCGGGCAGGTACTGCTGACTGCCCTGGCTGGTCAGTGGGGCAAAGCCAGGCATGAAG
AAGTGCAGGTAGGGGAATGGGATGATGTTTCATGGTCAGCTTCCACAGGTACAGCATTCAGC
TGGCTCTGGGAATCGCAGGCAGGTGGCAACCCATTTATGGTGGCAGATACTAGGAGGTTTA
GGTCACTCTAGGTGGGCATGGGCAGCTTAGGGGTTCTGAAGCAGATGTATAGAAGGCTT
CATAATCAATGCAAAAAGTCTCATCTGCATTTGCTATGAGACTTGGAGGGTGACATTTGTG
GGGCTCTAGCATGGTGCCTGACACCTTGGGCAAGAACAATAATGCHNAATNNGTTTTNNA
AANCCATATTAATAATGGGTCTGAATAACTGGTGATGAATTTACTTGATAATCAGAATTC
AAGATTAATAATNAGACCACTCTTTGTTTCAACAGAANGAAANNANNTAANTN
TTNNANNNGTCCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNGAANGAATTC
NATATCAAGCTTATCGATNCCCGTCGACCCTCGANGGGGGGGCCCGGTNCCCAACTTTT

Sequence 941
AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACCTGAGACAATAGC

[illegible]

Sequence 950

Sequence 951

Sequence 952

Sequence 953

Sequence 954

Sequence 955

Sequence 956

Sequence 957

Sequence 958

Sequence 959

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Table 1

TTAATTTTTTAAATCAAAGAAGAAAAAGGCTTTCACACAGATGAATGTATAGGAAAAACA
CAAGTAATGACCAATTTTCAAGAGCCTTATTGTAAAAAAGAAAGAAAAAGGACA
ATTATTTTGGAGTTACTGTCTCTAATCTTAAAAAGTAAGTACCT
Sequence 960
CCGGGCAGGTACTCATCAGATGGAATGTTTTACCCTGCCGAGGTTNTAGTCATGATGTGC
TGAGCTCTCTGNGTCTGACGTGACTGACTGGTANCTGGGCGTTGGCNGGACCCCTCCTTNN
NCTNTANNANCACATNATGNAGAATTTNNCACCTATGGGAAAAATTAANTGATNGACATG
CCCNNGAAAAGGATGCATNCCCCTCTGNNAAGGCTATGCGTACCTCGGCCGCTNTAGA
NCTANT
Sequence 961
AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGGTTTTAACTTC
ATGTGTCTGAAAGCAGCACTGAAGAGGTTAGAAAAGACCATCTTGATCTGAGGATGCCAC
CCCTCTCCCATCTCCAGCAGCAGCCACCGTGGCATGGAGAGAATCTGTGTGCTAGGGAG
AGGGACAGCACAGTGATTGTGAGATACTGCTTTGAACTCAGTGCTGCCCTGTACAGCTG
AAAGCAAACTGGGCTGAACTCAGCCAGCACCCATCCACACAGGGAGCATTTAGATGAGC
TCTAGCCAGAGAGGAATCGCCCATCCAGCAGTCTGAATATGAGTTCCAGCAAGCCCCGT
CACTGTGGGCTAAATTGGTCCAAGACCTTAAATAAACTTGAAAGGGCAGTCTAGGCCATA
AAGACT
Sequence 962
NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTGCCAGTTTCTTCT
CCACTGCACTCTTATATTCTACCAAAATTTCTCCATAGCACCAAATCCCGCCATTTCGG
AGCTACGATCACCCGCGGCTGAGGAAGGACGAATCCCCGCGTACCTGCCCC
Sequence 963
CCGGGCAGGTACTCCGCCATTTTACGTGAGAGACTTGAGCATTCTTGATTGGTATCCT
CAGGAGTCCGGGAACCAGTCCCTCCATGGATATCAAGGGATGACTGTTTGCCCGTGTITTT
AGCCTTTGTATCTTTGCTCAAGAAATCCCTAAACCTGGAGTACCT
Sequence 964
GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTTTTTTTTTTCTTTTTTTT
AAGAGTATAAGGTTTACACAATCATTCTCATAATGTGACGCAAGCCAGCAAGGCCAAAAA
TGCTGGAGAAAAATAACGGGATCTCTTCTTGTAACCTGTACCTGCCCC
Sequence 965
CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGTCTTGT
TTCCCTCTGATANGGGTTTGGATCTGTGTCCCACTAAATCTCATACTGAATTGTGATCT
CCAGTGTTGAAAGTGGGGCTGTGGGAGGTGATGGGGGATCATGGGGGTGGAGTTCTCA
TGAATGGTTACCACCATCCCCCTTCTACTCTCTCTTGTCTCCAGCTCTGGCCATGCGAT
GTGCCTGCTCTCCCTTCCCCCTCCACCATGATTCTAANTTTCTGAGGCCTCCCCAGAAG
CTGAGCAGATGCCAGCCATGCTTCTGTACCTN
Sequence 966
TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTAGCAATCGGGTTGCCAGC
AAAGCACTGGATGCAAGCCTTGCCCTCCAGAAGCTTACCAGTCGGGTTGCCAGCAAAGCA
GTGGATGCAAGACTTGCCCTCCAGGAGCTTACCATCACACGAAGAAGACAAATAAATGC
ATAATATACAGACGACATAAATCCATACTGCACTCCAGCCTGGGTGACAGAGCAAGACTC
CATCTCAAAAAAAAAAAGAAAAAGAAAAAGAAAAAGAAAAAGAAAAAGAAAAACAAAA
AACCANAAGAGCAAGGGAAGGCTCACAGGGCTGAATCTTGAAGAATGGGGGTTCTCAGGG
TTACAGAGAAGGGGGAGGACATTCTGGACAGAAATGGAAATGTGTGAAGATATTTGTGTA
CCTGCCCGGGCGGCCGCTCTAGAACTAGGTGGATCCC
Sequence 967
AATTGGAGCTCCCCGCGGTGGCGGNCGAGGTACCAATAAGCATATTGCTTTGGCAATGCA
TCTCCAGAGCANGTGACCTGGCCGTCTGTCTGGGGACACTGAC
Sequence 968
ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCTAATGAAACCCGTCTTTGG
CCTGTGGCTGAGACGCCATCTGTAGGCGGTGAAATCTTCCAGCCTATGTGACGAGGGTC
ATGCCACAGGGTGCGCACCTGAAGGAAAAGGAAAAGGAAAGGTTGAAACACAGCTCCTTC
AGGCTTNTTCTTACCTGGCCAGGGGTGTTTCTGTGTGCCACAGGGCGTTCCGAGGTG
CTCGCCAGGCCCTGTGGTGGAGTTTACAACCTTTCACAGAAAGGCCCGAGTATCCCTGAGC
CCTCGTGGGGTTGGTGTCCAGTAGGACTGGGTGACTTGCTTCACATCACACATAAAAG

Table 1

CGGCTGCTGGACTGGTAGCCAAAAGACAAATNCAGCATAGTCATCGTCCCTTTTCGGTGT
TGATGAAGAAGGTGCCACTTGAAGTCCACAGCATTAACTCATCATAACCTGGAAGAAGA
ACCCAGAGCCAGGTTAAAACCTGCAGCCTTCAGAAAGGTTCTTCCGTCATGTTTCCTAGA
CATTCTCAACACCCACAGGGGATAGGTACCCTGNCCCGGGCCGGCCGCTTNTAGAACTA
AGTGGAATCCCCCGGGCTGCAGGAAATTCNATATTAAGGCTTTATTGATACCCGTCNA
CCTTNAAGGGGGGGCCCGGGACCCCACTTTTTG

Sequence 969

TGGAGCTCCCCCGGGTGGCGGCCCGCCCGGGCAGNACTTTTTTTTTTNTTCTTTTT
TAAGATTATNTNTAAAAGGGGAGATAGGTAGGAGTAGCGTGGNAAAGGTGATGAGTGT
GGGGAGGAATG

Sequence 970

TAGGGCGAATTGGAGCTCCCCCGGGTGGCGGCCCGCCCGGCAGGTACCTCATCCTGTCTC
CAGGCCACTGAATAACACCCAAAAGAGCAAGCAGCCCTGCCATCGGCACCTGAAAATAA
TCCTGAGGAGGAAGTGGCATCAAAACAAAAAAAAAAAAAAAAAAGTCTCGGCCGCTC
TAGAACTAG

Sequence 971

ACCNAAGCATTCTACCACAGTTGTATTTGACTCCCACTTGTAACTCCTTTTAAAAA
TTCCATGTTTAACCATATGACCCTGCTTGCTTACTCATATTCTCCCTCCCTCTCCCTTC
CTTCTCTTCTTCCAGAAGTCATTGCTGTTGAAATATTTGTAGGGATTGCTTATTATA
TTATTTAGCTGATGAACCTCAGGACAACCGTCTACACACACACACATACACGCAC
ACAAAATCTCAGCTGTTGAAGAGTGGGCTTGAATCAGACTTCTGTGTCCAGTAAAAAC
TCCTGCACTGAAGTCATTGTGACTTGAGTAGTTACAGACTGATTCCAGTGAACCTGAATC
TAATTTCTTTTGATCTAATGAATGTGTCTGCTTACCTTATTTCTTTTAAATTGATAAGCT
CCAAGTAGTTGCTAATTTTTGACAACNTAAAATGAGTTNCATTCACTTCTTTTACTTA
ATGGTTTAAAGGTATAGACCTGCCCGGGCGGCTCTAAGAACTAGGTGGATNCCCCGGG
GCTGGCAGGGAATTGAAATCAAGCTTAATCGATTNCCGNCCAACCTCGANGGGGGGGG

Sequence 972

ATAGGGCGAATTGGAGCTCCCCCGGGTGGCGGCCCGAGGTACTTTTTTTTTTTTCTCC
ATGGTCTTTTNGGTATCTCTCCTTCTTTCCCTGTGAGCCACAGTTCTTTATATTAAAT
CTTTTGATGGCGAGAATCCTGGAGTAGGAGTGAGAAGTGGACTGTAGATGCACCTCTCC
ACTAACCTGTGTTNGGGGCAAATACGTCTGTCTCGTTGGGAGATGAACTTACAAGTTCAA
TTACTAAATCTGAAATATCTGGATTAGAATTTCTAGGTTTTTTTCTGCTCTTGACAT
TCTATGATAACTCCATGACAAATGTTCTTTTCCAAATAATAAAACTTAAACATTTCC
GTTTAAACCTTCAAAGACAAAACAACCTTNTTCTTTTGCATTTGGGGTCATAAAACT
CTAAACTAATAAGGTTAGATGTTTTAGGGGAGAAATCTATTGCTTACAATAACCACCCC
CCCTCCAAAAAGCC

Sequence 973

CGAGGTACCTATGGGCCAATGAATCCCAACATTTTCAAATAAATCNTTNTCANACTCCA
CTCAGNTGGAAAAGTTTTGCTGAAAATATTTCTGGATAAAAAACAAAAACCTCATGTTGG
AAATCAACTGTCCTTCCATTGGAACATTAAAGAGGAGTCCCAGGGAACACTGGTAATA
GGTGAATGGTTCTGAGTCAACAGTGTGTACAGAGCCGCCAGGCGACTCAATTCAC
GTGCTCCTTTCTGGGGATGAAAAGGTGCTCACCAGATCTTCTATGCAACTGAGAGCTC
CTAAATCAAGTCAAAGGGGACCATCGTACCTGCCCGGGCGGCCCGCTCTAAGAACTAGTG
GATC

Sequence 974

CCGCGGTGGCGGCCGAGGTACTCAGAAAGTGTCTCTAGGAGGCTGGGCCAGTTTCTCTCT
TTTCTGCAGGCGTCTCCAGAGCACCTCTCACCAGCTGTATCTACTACAATCGTCTGGC
ATTTGGAATCTGGTTGAGTTTGGGTCCTCAATACCCAGAAAATAGAGCCTCCAGGACCCG
CCCCTAAGCAGGAATTTTTCAGATCTCCCTTCTGGGTCTTTGGTCCCTAAGTCTCTGGC
TTTGGCATTCTGGTGGGAATCCTTGGGAGAGCCATCCTGGTACCTGCCCC

Sequence 975

CGAATTGGAGCTCCCCCGGGTGGCGGCCCGCCCGGCCNGGTACANTTNAATACATTANTG
TAGTAAGNTATTAANTGGTGCCCTATGATCTNCGAGAGGTAATACACTATCACGTGTTT
CAAAATTTNACAGGAAAAGAAATCATAGANTCCTATANCTGAAGGGGGCTNTACCGGGNTC
TACAAANGCCTGCCAGGTGCTNNGATNTCTNCATCACATNCANCCATGANAAGTTACTT
GTGTCATGGTACCT

Table 1

Sequence 976

[illegible]

Sequence 977

ACCCACTATAGGGCGAATTTTNAAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACTCTG
GGTGGGGGCTGGGGGGGTNCCGCCGACCGTTTTTCTCTTCCGGCCAGGTGCTTTTCTGT
CAATTTCTATGGAATGCAAAAGGAGGTTTTGTTTTATTTTGTTTTTTGTAAAGCTTAA
GAAAAAATACACATCTTATCTTGAGCCTCCATACTTAAAAAAGAAAAGAAAAGAAATC
AATAAAAAAGAACTGGGGCGCAGTT

Sequence 978

GGCCGCGGGGGCTGCGTAACCATGTTTNCATGAAACAAGCCAGCCANTTTGAGGNGTGCT
TTTTGAGTGTAAGGCCATTATCATGGACFTTTTCCCCAGCTGCAGGGTTATCTACAACCTC
CGGGTGGAAGTCAAAGATTGGAAGAGGATGCTCTGATCTGGAACTGCATTGCTTGGTGG
TCAGGAGGGGTTCTTAGTAAGCAAACCTCAGTTTTAATCCCAGAGTCGGAAGTGGGTGTCAA
CAGGCCAAAGCAACATCCTTTAGCTCTGCTGCTTTTTTGTCTTGGTGGAGGAATAGCCA
ATGGAAGAAGATGGAGAGTCCGGACCAGAAAAAAAAAAAAAAAAAAGTACCTGCCCGG

Sequence 979

GGTGGCGGCCGCTCTATAACTANGNCCACACCCTGNTATTCTCGAGGTNGCCTTTTGCA
GCTNCAGGCNNTATGGAACAAATGAAGGTCNATGTGCACTCTAATAGAAGTAATNGTNGA
NNGGTGTTCTTCACATCCACTTCTGTTNNTGATTGAGTTAGGCATCTCTTCATGGTAAA
ACCTTTTCATTAAACACAAAGAAAGCTTTTTTTTTTTTTTTTTT

Sequence 980

GAATNGGAGCTTTTCGCNGTGGCGGCCCGAGGTACAATACTNGCCTGAANTTCTATGGC
AACAGGCATTTANTNAGCGGAGCGGTTTTATGGNCTCATCTGTATCTGGGATGCAAAGAA
ATGGGAATGCCTGANGTCAATTAAGCTCACAAGGACAGGTGCCTTCCTTTCTATTAC
CCTTGGCAAGTNGGCCCTGTCAAGTTGGTACCTGCCCG

Sequence 981

TAAAAATCACGTCACCTATATAGGCAGCTGCTGTATGGAAAACGCATTTTGTGTTTCTACAA
ATTGTAAGCGGAAAGCCCTTTTGAGTACCGCGGGATTTTGGATGATNGACATAAGGTTTTTA
GCATGTNCCCTCCTTTTCTCACCCNCCCTTTTTCTTCTATTAATCANGAGAAACTTCA
AAGTTAATGGGATGGCCGGATCTCACAGGCTGANAACCTCGTTCACCTCCAAGCATTTTCA
GAAAAGCTGCTTCTTATTAACCATACAAACTCTACCATGATGTGAAGAGTTTCACAAA
TCCCTCAAAATAAAA

Sequence 982

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGCCTTGCCAGACCAGA
GTCAGTTGTATCATCCTGGGGCAAGTATGAGGAGAAGCTCACGATTACCAGGCACCTCAT
TGTGAACATGCTTCTGCAACGCCTGCATACCCAGTGGTTCTCTCAGCAACAGACATGT
CCAGTGGACCGTAGTGTGTGACGGTCGCCCATNTGCGCCCAGTACCTGCCCG

Sequence 983

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGNCCTTTTTTTTTTTTTTTTTTTTGG
TCTGAAGTTTTTTCCCATTTTTATATCGTCAATATCATCACTCATTTGAAAACTAGGAATG
TCCAAGTTGATGCTCTGACCCAGGCCACCCAGGTTCCAAGGATTCGTAATCTCTTTGG
AGCTGACCTATAAAAGCAAAAGAGTTACTGAGAGTCACTTTGAGGAAAGCTGCGGTTGG
GACTTCTTTGACTCTTATGCTTACCTTTGGAAGAAACATTGAAAATCAGAAGGAAGCTGG
CTACAAATTTACATGGAAGCTCATCTTAGGGGTTGGGTTCTCTTTGATTCTCCCCGC
GTACCTGCCCGGGCGGCCGCTCTAGAACTANTGGGATCCCCCGGGCTGNNAGGAATTCTG
ATATCAAAGCTTATCG

Sequence 984

TCGAATTGGAGCTCCCCGCGGTGGGCGGCCGAGGNCAGAGCCGCCAGGGCGACTCAATTCA
CGCGCTCCTTTTCTGGGGATGAAAAGGTNCTACCANATCTTTCTATGCAACTGAGAGCT

Table 1

TGGAATAGATGCTGGCAAAGCAGTTACTCTTCAACAGGGCTTCAATCAAGGTTATAAGAA
AGGNANANGTCANTNTANACTATGGACNACTCCGAGGAACATTGAGGTAATTTTAAAGT
CTAAATGCTGAATCATTTTAACTCAATACTACTGGAGGATGTTTCTGTATAAAATAAGT
GTTTAACTGAAATGCTTTTCTGGTGCTAAATACACTAAAGCGTGTCGCAGATCATAGA
ATTATATTGCCTTCAAAGGTCAAATCNTNATNAGNCTCATCTACTTTAATGTGTGAAC
TACAATATTGCTTTTCGTGCAAAGAAATGGTAAAGAAGATGTATACTTCTGCTACCTGA
ACAATTATCTATCTCATTGAAAGGTCTTCAGATTTTGA

Sequence 995

GAATTGGAGCTTTCCGCGGTGGCGGCCCGCCGCGGCGAGGTACGCGGGGTTTTAGCTTTTT
AAATCTGCTTTGGTATACTCCATANNNTTGTGCCATTGGATTATTCTGTTCCATAGAA
ATCCCCACTATAAAATGTAAACCAGACAAACTTCCATTATTCAAACGGCAGTATGAAACC
ACATATTGTTGGCTCAAAACTGCAGATCCTTGCTGTTACGGTCACACCCAGTTTCATC
TGTTACCTGACAAATTAAGAAGGGAAAGGCTTTGAGACAAACTGTGCTGATCAGATAG
AAGTTGTTTTAGAGCTAATGCTACTGCAAGCCTTTTGTGTTGGACTGGAGCACAAAGCTA
TGATCAAGGATTCTGGAGTGAAACCAGATGTTACTCGACCTTTGTCTCCAGGCTGTG
ATCACAGATGGAAATGCTTTTCTTTCTGCTACCAGCTAAATACTTTGGCACTGACT
ACACAAGCTGATCAAAATAACCCTCGT

Sequence 996

CCCGCGGTGGCGGCCCGCCGCGGCGAGGTTCACCGTGTCAGCATTTGTTGAATTNGCACTT
ATTGTTNAATTTAGCTCTGGAACAATGCAGGGAATTTGAAGTTTCTGTAAATAACCACA
ATTAGGAAAAAACCATACAGCTCAAGGAAATCCACTAGTATANCCAAGATACCCCTAAGT
TCTTCAAGAGACACAGANGGGAGAATTATGCCAAAGGTAACATACACCACCAGAACGCGG
CCATCCACGTACCTCGGN

Sequence 997

CCGCGGTGGCGGCCGAGGTACGCGGGGACGTTAGGTGTCCGCGGAGGTGTGCTTGGTG
TGTTGCGGACTGGCCTTGAGGGAGAGCTGGGGCCTGCTCCCGGAGAGATACCGGCTATG
TCGATCGAAATCGAATCTTCGGATGTGATCCGCCTTATTATGCAGTACCTGCCCG

Sequence 998

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTNCCAACAGAAACCTGGCCAGGCTC
CCAGGCTCCTCANCTATGATGCATNCAACAGGGCCACTGGCATNCCAGCC

Sequence 999

CCGCGGTGGCGGCCGAGGTACTCACGCCTGGTGGGTGGCAGCTCGCGGCGCAGCTCGTC
CATGGTAATGTAGTTCTTGTCGCCAGCCAGGATCTTGAAGGAAGCCATGACTTGGTCTGC
TGTATCTGTGTCGGCTGTCTCGCGGGACATGAAGTCAATGAAGGCCTGGAATGTCACTAC
CCCCAGGCGGTTGGGGCCACGTGGCATCGATCCTCCCTGCCCGCAAGTGACAGTTTAC
AAAATTATTTCTGCAAAAAAAAAAAAAAAAAAAGTACCTGCCCGGGCGGCCGCTNTAG
ACTA

Sequence 1000

CGGCCGAGTGTGGCTCTTCTGGTGTTTCACTTGGGGAGAGAGGAGTGGCCTTCTCTTG
CAGTTGAGGCCGGCGCCGAGCCGACTTCAGCCGATCTCGTGGCGGAGCCCATCTTGCT
CCCTCTCCAGGCCTTATCCGCTCCCTAGGATCCCGGGCCCTGTAGGTGGGAGTTGGGA
GACGACAGTACCT

Sequence 1001

AGGTNCCCCTGCGCCAATCATCACAGCCTGGTNTGTATNAAGTGTGTGCCAAACTGCCTG
CGCTAACNACCAAATGCAAATGTCATACNTCTNTGTCACTAGCANCATTAAGTTNCTNTA
GAGGACACGTTGTGAGCCACACCTNAAAAGACAAGCCTTCATCAATCTTTTCTGGAAGA
TAGCTTGACCTAGCAAATTCATTATGTTCAAAATAANAGNCTATCTTTCTTTNGTACNC
TGGCCCCGGNGCNGGGCNCCGCTTCTATNGAANCTAAGTTGNGTATTCCCCCGGNGCCT
NNCCAGAGAAATTTTCTTATTATNCAAAAGNCTTTNATACCNATTTNCCCCGGTCCGNA
CCCCTTTGGAAANGGGGGGGGGTGCCCCCGGGGTTAACCC

Sequence 1002

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTGTTTTAAAGTAGTATTTTCTCTGGGCTGTGCACACTTAAGGCATTAGATCCACA
GATGGGCTCATCCGCTGGGATGCTACTTGTGGTGATCATCTCCTAAGCCCCACGTTTATG
CCTGTACCTGCCCC

Sequence 1003

Table 1

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTACCAAGTCTTACAGT
GATTATTTTACGTGTTTCCATGTATCTCACTTTGTGCTGTATTAACCAACCTCCATTTT
GAAAATCTACGTGTACGTGGGATACAGGTCACGGGCAGAGCTCCTGGCCTCAATGATGC
CTCCTGATCTATCGCTGGGCCTGGACGACCAACACTGGGATGATGACNAGCAGAATGGTC
ATGAAGATGCTCAAAATCAGGGCCCANATGTTTCAAGCACTTGGCGGTGGAGGCATAGGCC
TGGGCCCCG

Sequence 1004

TACTATAGGGCGAATTNGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATTCTCTG
AAGAGGAAGCAGCTGGTTGGACAGGATTTCTTGAAGAGCCAGGTGCTAAGGGCATCAGGT
CGACATCCATAGTAACCATGTGCCATAACATCTACACATTTCCACTTGTTTACAGACAA
GGTAACAGGCAGAGGAAATCCAGAGTCCTGCAGTAAGCAGATGACAAAACCTCAATAT
GCTTGGGCACCACTTAGGTGACCCAGGGAGATTTAGTGTGGCCTTAGGAAAGCAAAAGA
GCACTTTTTATTGAAATATGAGCTTGTCACTGGGAAAGATTTGTAATTTGATCAAGAA
CTTGATTATAATTATGCCTCAAAAAAAGTTCTCATTTAGTAGTGGAGCAATCTAGAA
AACATACCTTTTTTGT

Sequence 1005

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAACAAACCC
CTCAAGAAAGGGGCAAAAAGGCCCGAGTCACTTCAGGTGGTGTGTCAGAGTCTCCAGT
GGATTTTCTAAGCACATTCAATCCAATTTGGACTTCTCTCCAGTAAACAGTGCTTCTAGT
GAAGAAAATGTGAAGTACCTTT
TT
TT
CCTGTGTGGAAATTTGTTATTCCGCTCACAATTTCC

Sequence 1006

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTT
TT
TTGAAAGGAAAAAACCACAAAACATACAGGCAGATTTGATTCTGTGAGTTTCTNA
CACCTCACACTTGTTCACCAATNTAANATGAAAACTNTTTTCCAAAATGATTTCAG
CCNCCAACAATGGNGTTATTAATAGGAATATGGATCAATTTCAAAAANAANCCAATGAAT
CCCATNTA

Sequence 1007

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAGACTTATGAA
TAGATTTATGAATTGGAGTAGAAAAATAGACATTTCTACCTTGAGGATATAGAAGGAA
CTTAGGAAGTGAGAAAGTCAGATTACCCTAGTCCTTAGGGTGCTTAAAGCTAACTAGTCC
CGTGAATGAGAATCTAACCTATGTGAAAACTCCAGCCTGTACCTTTTTTTTTTTTTTTTT
TT
TT
TTGGGCCGTTAATTCATTGGGTGATAAGC

Sequence 1008

CCGCGGTGGCGGCCGCCCGGGCAGGTACAATTTGATCAAGCTATTAATGCTATAAAAA
TATTACCAGTTTGGTGGTCTTCTAATGAGAAATCTAAAGCACACCTCCCCACCACTCGG
ATATCTGTTTCTGATGATCACGTGACATCTAGCATATACGTCTGTAGGAAAGGGAAAAA
GCAACCCATTTCACAAATGGCTAAAGTCAATCCCGCTACCTTTTTTTTTTTTTTTTTTTTT
TT
TT
GGGGGGGGGGCCCGGTACCCAGCCTTTTTGTTTCCCTTTAGTGNA

Sequence 1009

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCTTCTCCGGCTGATAATTGCATTATGGAT
GAACACAAACGAGAAATTGCGGAAGCTAAGCAAATTTGTAGAAAGCTTACGATGGTTGTG
TTGTCTTCTGAAAAATGGATGAGCGATAAAAAAAGAAAAAAGAAAAAGTACCTTT
TT
TT
TTGCGCCGCTTGGCCGTAATCATTGGTGCATAAGNCTGTTTCT

Sequence 1010

CCGCGGTGGCGGCCGAGGTACCATGATGATGACCTGGCAGATTTGGTCTTTCCCTCCAGT
GCGACAGCTGATACTTCAATATTTGCAGGACAAAATGATCCCTTGAAAGACAGTTACGGT
ATGTCTCCCTGCAACACAGCTGTTGTACCTGCCCCGTTTTTTTTTTTTTTTTTTTTTTTT

Table 1

AATTCCTTTGACGACCCTAAGGTCCTGGACTGCCTTGGGGACATTGCCAGGGACTTTGTA
TATTGAGGTATACCATTGGGGGAGGAAAGAAAGTTT

Sequence 1017

ACGACTNCTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCGGGCAGGTACGCG
GGCAAAACAGTTTTCTAATCTCAGCAGTATCCAGTGAGTGAAGAACCTTGACTGACTC
TTGGGCCACCTCTGTTACTTACTGTACTATGGAAGCTCCTGGTGAATGTTACAATTATG
GGATGTAGTATTTCTATTTGACTTTAAGTCAAATGCTTATATGAAATATGTGACAACAA
ATAGAGAAGACTGGCTCTGTTAGTAATTATGCAGTATGTACCTTTTTTTTTTTTTTTTTT
TT
TCGAGGGGGGNGGCNCCGGCTACCCAGCTTTTTGTGTCCCTTTTAG

Sequence 1018

NTGAGGGGTTAATTTGCCGCGGCTTGGGCGGTAAATTCATTGGGGGGTTTTTTTTTCCCC
CCAAAAAATTTTTTTTAAAAAGGGGGGGGGNCCCCNTTTTTTGGGGGGGNATTTNNA
TTTTTTNNTTTTTTANAAACCCCNACCCTTTTTTTGGGGGGGNTTTTTTTTG
GGGGGGGNNTTTTTTTTTTGGGGGGGGGNNAAAAAANGAAAAAGGGGAAAAAANT
TTTTTTTTTTTTTTTTTGGGGGGGGGNGNNTTTTTNNTTTTTTAAAAAATAAT
TTTTTTNTGNCCCCCNCCCCCCCCCGGGGGGGGGGCCCCCCCTTTTTTTTTTTTTT
CCCCCCCCCAAAAAAANCCCCCCCCCAAAAAAANNAAAAAANNNTTTTTT
TNNNTTTTTTANNNNNNNNCCCCANNNCCCCCCCCNAAAAAATAACCCCCCCCC
AAAAAATAAANNNCCCCCCCCCAAAAAAAGGNGAANAANGGNGGCNCCCC
CCCC

Sequence 1019

TGAGGATCCTGTGCGGATCGCAATGGACAGCTACTAATGGTCACAACGACCTCTTCTC
TAATCCTTACTTTATACATCAACCTTCAGGTGGCTCCCCAAATGTTATACCAATCTGT
AAAATGCAAATAAAACAAAAGACAAATCTCCATCAGTACAACATGAAGTGAACAGCCAT
TTAAAAATCAATGGGTGAGAACTTCTTGACCTCATTGGCTAGATTCTTCTTAAAT
CCATACACCCGNAATTTAACAGGGAAGGTTCCCATTCCTTGGAAGGAGCAAATTCAG
NATGGTACCAAGACCTTGAGNTGAAATTATATTT

Sequence 1020

NATACCAGGCGTTTCCCCCTGNNAAGGCNCCNCTCGTGGCGGCTTCTTCCATTGGGGGG
TTTTTTNTTTTTTTNCCCCNCCCCCNNGGGGGGTNGAAAAAANCCCCNNGCCCCC
CTNCCCNTTTTTTTTNNGGGGGGGGNNCCCCCNAGCCCCCGGGGGGGGNNNAC
CCCCNTTTTTTTTTTTTTTTTTTAAAAAATAACCCCCCNCCCCCGGGGGGG
GGGGGGGGGGGTTAAAAAATAATTTTTTTAAAAAATAACCCCCCATCCCCCT
TTTTTTTTNNGGGGGGNNTTTTTTTTTTTTTCCCCCCCCCGGGGGGGGNGA
TTTTNTNTNTCCCCCCCCNNATTTTTTNNAGAATTTTTAANNATTTGTNNANANN
CCCCCCTTTTTTTTTTTTTNTNNNNAANNNGNCCCCCNNTTCCNCCNNATTTTTTN
TTTTNATTATANTANCCCCCCCCCNCCNATATTNAGGGNGNTTTNTNNGNTTTTTANA
AAAAAATAAATAA

Sequence 1021

CCGCGGTGGCGGCCGAGGTACTTACAGGGGACCGCCAGGGGCCTCGAGAATCGGTATCCT
GAGTCCTCTTGAAGAGCAGTAGAGGTTGTTTCATTAAAGTGGCAAACACACTTAGTTGCTT
AATTGAAACNNGGGGGGACACNAATACNGGCANCTCGCGNNGGGGGGANGGGGNTTTT
AAAAAATTTCCCCCGGTTTTCTNAANAAAAAATAACCTTTNANNCTATAATAA
ATTTATTTTTTTNAAATNTNGGNCCCCCNACCCCCNAAAAAATNTTTTTTTTATTT
TGGGGGGGGGGNCCCCCCTTTTTNTAANAATANAATAACNCCCCCNCCCTTTT
TTTTNCCCCCTTTTTTTTAAACCCCTNNGGGGGGGGNGGNGGGGGGNGTTTTNNCCTC
NTTGNGCCCCCCCCNAAAAAANAANAACCCNCTTTTTTTTTTTGGGGGGGGGNGNNGG
NNGGGNGNANTANAATAAANGGGGGGGGNTTTTTTTNTNNTTCCCCCNCCCTTTT
TTTTNNGGGGGGGGGGAATAAAAAAANAATAAATAA

Sequence 1022

ACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGACCTNTAACTCCCC
CTGACACAGAGCAATTAGACTCCCATACAAATGGTATCAATTATACCACTCCATTGGAGG
GACTTCCTTTATGTGTACCCAGGATACATTGCTCAACTGCAAGTTGGCCTTTGGGGGGG
CCCCAAAAAGGGGGGGNTTTTTTTTTTTTTTTTTTGGGGGGGGAAAAAANTTTTTN

Table 1

TNCCCCCCCCCCCCCCCCCTAAAAAAAAAAAAAGGGGGGNNCCCCCCCCNAAAAA
ATTTTTTTTTTNGGGGGGGGGGGGGGGGGTTTTTTTTTTTTTGGGGGGNNAAAAAAA
AGGGGGGGTTTTTTTTTTTTTTTANAAAAAACCCCCCCCCCCCCCAAAAAATTT
TTTTTTAAAAANNAANAANTNTNTNAAAAANNNGNAAAAAGGGGGAAAAAANTNAAA
AANCCCCCNAAANNNTNTTTTTTTTTTTTTTTTNAAAAAAAAATTTTTTTTTTG
GGGGGGGGGGGGTTTTTTTTTTAAAAAAAACCCCCCNTTCCCCCNTTTTTT
TTTTTGGNGGGGGGGGGNNCCCC

Sequence 1023

CCGGNCAGGNACTTGACCTTNATCTNCTAACCATTCTTTATGTCATCAAGAGTTGCATC
ANNCGGAAGCCTTAATATNAACGGATCTGNNNTNTACATCATTCTNTATACTCANCAG
TTTCACCTTTCATAGTTTAGTGGAGTTTTTTTTTATTTTTTGGGNANAAAAACNCCCCN
NCTTTTTTTTTTTTTNTNAGGGGGGGGGGGGGGNTTTTTTAAAAAGGGGGTGNTGNA
AAAAANNGNCCCCCGNAAACCCCCCTTTTTTNGGNTTTTTGNCCCCCCCCCTTTT
TTTTNGGNGGGGGGGGAAAAAAGNTTCCCTATTTTTNGGGGTNTGTNTTTTT
AANAANAAAAAGGGGGGGGGGGTTTTTTTTTNTTTTTATNNANTNTCCCCGTNTTTTT
GNAAAAAAATNNTTTNTTNGGCCCCCCCTNTTTTTTTNNNNCCNGNGCCCCCCCCN
AAAAAAAANCCCCCCCCCTTTTTTTTTTNGGGGGGGGGGGNTTAAAAANAAT
TTTTTNTAGNTGTNTAGNTAAATAAAAAAGAGGNGCCNNTTGCCCCCCCNANAA
AAAAAAAATTTTTTTTTTNGGGGGGGGGGNTTTTTAAAAAAAANNGGGGGGNGTT
TTTTTTTTTTTT

Sequence 1024

CCGGGCAGGTACTGACCTTGAAGCTAACCCCTGAGTATGATGCAACTCCACTCTAATGT
AAATTAATGCCATGATCTTAAAAATGCCATAATNTGTGAGGTATAATTTTAAATTT
CCCAGGNTNAGGTTCCCAATCTTTTTTTNTCCCAAAAAAACCCTCCCNAAAAA
AATTTTTTTNNTTTTTTTNTTTTTTAAAAAAGGGGGGGGGCCCCCCCCAAAAA
GGGGGGNTTTTTTTTTTGGGGGGGNGTTTTTTTTGNGGGGGGGGNTTTTTTTTTGGG
GGGGGGGTTTTTTTTTTCCCCCTTTTTTTNNGGGGGGGGNTTTTTTTTTGGGGG
NNNGGGGGGNATNTNTTCCCNNTTCCCCCCCCGGGGGGGGGTTTTTTTTNNCCCC
CCCTTTTTTTTTTNCNCCCCCCCCCTTTTTTTTTTNGGGGGGNNNNNNNNNN
NNTTTTTTTTTNGGGGGGGGNGTGTCCCCCCNNGTCCCCCNAAAAA
AANGGGGNGGGGTGNCNCCCCCCCCNAAAAAATTTTTTTTTNNTTTTTT
TTTTTTTTTTTTNNNNNCCCCCCCCNAAAAA

Sequence 1025

CCGGGCAGGTACAGCACTGGAACCTCTTGAGCAGGAGCATACCCAGGGCTTCATAATCAC
CTTCTGTTCAAGCACTAGATGATATTCTTGGGGGTGGAGTTGCCCTTAATGANAAACCAAC
CAGTAATATTTGGTGGNTGTCACTCANNTTGGGGGGGTATTTTTTGGGGGGGNTTT
TTTTTTTTTTGGGGGGGGGGGGGNTTTTTTAAAAATTTGTAATNTTAAAAATNTN
AAAAATTTAAAAANNTCNCCCCCNAAAAAANNTNCCCCCCCCAAAAAANAAAA
AAAANTTTTTTTTTTTTTTTTTTNNAAAAAATTTTTTTGGGGGGGGGNTTTTT
TTTTAAAAAATTTTTTTTTTGGGGGGGGGNCNCCCCCNAAAAAAGNNGG
TTTTTTTTTTTTNGGGGNTTGGGGGNATTTCCCCCCCCCTTTTTTTTTNNTCCCC
CCNNAAAAAATTTTTTTTTTNGGGGGGGGGNNNTCCCCCCCCCCCCNTTT
TTTTNAAAAATTTTTTTGGGGGGGGGGGGGNTTTTTTTTTTAAAAA
NNGNGGGGGGGGTTTTTTTTTTTTTTNCCCCCTATTTCCCCCCCCCTTTNCC
CCTAANAAAAAAGG

Sequence 1026

TGGTCACTGGAACCTGGCCTGGGGATACCCATNNTGGGCTCCTTAAGTTNGGGGGGGGN
NTNTAAAAAANTTTTTTGGGGGGGGTCCCCCCCCNAAAAAACCCTCCCNCCC
CCAAAAAATTTTTTTTTTAAAAAANNGGGGGTNNAAAAAANTTTTTTN
GGGGGGGGGGNAAAAAANCTTTGNGGGGGGGNGTTAAAAAAGGGGGGNN
NGTCCCCCNTTTCCCCCNTTTTTTNTNGNNGTANTTTTTTTGGGGNTTATT
AAAAAANGGGGGNNGNTANCCCCCTCTCTCCCCCTTTTTTTTTTGGGGTGN
ATNTANATNTNNTTCTCNCTNCCNTTTCNCCCCCCCCANAAAAAAGTGNGGGA
NNNGGNNCAANNCTTTTTNTCCGNNNTNTTNTNTTTTTTANANCCCCC
CCNTNTTTTTTNGGGGGGGGGGGGTCCCCCCCCCTTTTTTTTTTGTNNGG
NTTNAATTAATCNTTATTTTTTTTTTT

Table 1

Sequence 1027

CGAGCGGCCCGCCGGCAGGTACAGAGATAAGATACAAAGATAAAAAATGTTGGTATCAGT
TGATTTTGAAGCAGGTAATTACTGTGCCACCTCACAGTGCCTAAAAATAGTTCAGNNCCT
GGAATAGGGTTATNTCAGNCCCCATGCAAAATTTTTTAAAAAAGGGGGGGTN
CCCCCCNCAAAAAAATTTTTTTTTTTTTTGGGGNNNGGGNNNNNGGGGNNTTTT
TTTTTTTTTTTTTNGGGGGGGGNGNCCCCCTTTTTTTTTTCCCCCCTTTTTT
TTTTAAAAAANCCCCCCTTTTTTTTTT:TTTTNGNNCCCCCN
CCCCCCTTTTTTTTTTNTNCCCCCAAAAAAACCCTTTTAAAAAANTTTT
TTTTTTTTCCCCNNCCCCCCTTTTTTTTTTACTNTNTNNCCCCCCTNNCNC
CCNNNNNNCCNTNNGGNCCCCNTTAANNCCCTTTTTTTTTTTTTTNNCNCNN
NNCCCCCCTNNNTTTTTTGTTTTTTTTNAAAAAACCCTTTT

Sequence 1028

CCGGGCAGGTACTTATGTGAAAGGTAAAAAGATCTCATAGAAGTAGAGAGTGGCTCATG
CCTCTAATCTCGNGCTTTGGGAGTCTAAGGTGGGAGGATCGCTTTGNCGGCCTGNGTA
GTTTTGGTNACTCAAGNCTCTGNAGGTTNNCCCCNAAAAAATAATATCCCCC
CAAAAAAATTTTTTTTTTTTTTGGGNTNGTNGCCCCCCTTTTTTTTTTCCCCC
CNAAAAAATATTANNTNTGNTAAATTTTTTAAAGNGNGAAAAATTTTTTT

Sequence 1029

CTCCACCGCGGTGGCGGCCGCCGGCAGGTACCACACCGAAAGTAAAGAAAGATAACA
GAACATCTTTGAATTTTTGAGAGACAGACTTTGTTACTTAGGCCTGGAGGCAATGGTA
TGATCTGGTAGGTACCAGGAGGTGAACANCTGGAACCAGGATTCACCAAAAAAANGGGG
GGGGGGGCCCAAAAAANCCCCCGGGGGGGGNAAAAAGGGGNNGTAAAAATTN
AAATTTAAANGGCCCCCCCNAAAAAATTTTTTTTTTNNTTTTTAAAAAAGG
GGGNGNNNTTTTTNTTTTTTAAANCCCCCTTTTTTTTTTCCCCCCTTTTTT
TTTTCCCCCAAAAAACCCTCGGCCCTTTTTTTTTTATNTNCCNNNNCCCCNN
NCCCTNTNNCCCCNTTNCCTCAAGNGGGGNTNCCCCCGGGGGGGAATTTTT
TTTTTTTTCCCCCCTTTTTTTTTTNTTGGNNCNCNNNANCCCCCCTTTTTT
TTNTTTTTTNNANCCCCCCCCCGGGGGGGGGTGTTTTTTTTTTCCCCC

Sequence 1030

TAATTCAGGGGGGATAACCGCAGGNAAAGNAACCATGNTGGAGNCTANTAAATTGAAAA
NAAAAAAGGGGTTTGGGGGNTTTTTCCCCCTTTCCCCCTAAAAAANGGGNGGNGCC
CCCTNTAAATTTAAATANNTAAAAATTTAAATGGGGGNNNTGGGGGGGGNTT
TNCCCCNTTTTNCCTTCAAAAAAANGGGGGGGGGGGGGGNGNNAAAAA
AAAAAATNCCCCCTCCCCCGGGGGGGGNTTTTTTTTTTANAAANT
GTAAAAATTTNAAAAANTNAAAAATTTNAAAAAGGGGGGGGNGGGGGGGGNTTT
TTTNNCCCTTNTTTCCCCCCCCCGGGGGGNGNNTATANTCCNCNNGGGGGGGGGG
GNGANNTTTTTTANANTTTTTTNGGGGGGGGGGGGNATTTCCCCCCTTTTTT
TTTTTTTTGGGGGNATTTGGGGAGNTTTTTTCCCCCCCCCGGG

Sequence 1031

CCGCGGTGGCGGCCGAGGTACCACCTGCTCCTCATCTTAGGAGTCTCCTTTTCAATAAT
TAGGCTCTGTTCCCATTTTAAACTCTGATATTGGCCTTCACCTGTGACTGGACACCTT
ACNTANGAGGCGCCATGTTTCANCTATAANCAANTATAGAAAAAATTTTTTTN
NCCCCNTTTTTNAAAAAAGNAAAAAGNAAAAANTTTTTTTNTNAAAAAGGAAA
AAAGGGGAAAAATTTTTTTTTTTTTTTTTTGGGGGGTTNGGGGNTTTTTTAAAAA
AANAAAAAANGGGGGTTTTTGGGGGGGNNTTAAAAAANNTTTTTTTT
TTTTNAAAAAANAAAAAANCCCCCCCCCNAAAAAANNNNAAAAANAGNCCCCC
CCGGCCCCCCCCNAAAAAACCCTTGGGGGGGTTNGTAANAAAAANAAAAA
ANNTNTNTNNGGGGGGGGGGNTTTNAAAAAANTTTNAAAAANNTNAAAAAAN
NGGGGGGGGGGGGGTGGGAAAAAANNNAAAAANNTTTTTTTTTTTAAAAA
AAAGGGGGGGGGGGGGGNAAAAAAAGGGGGGGGGGGGNTTTTTTTTTTNTT
TTTTTGGGGGGGGGGGGGGGGGGGGGGGG

Sequence 1032

AGGTACNCGGGNCTTAANAACGAACGNTTGGGCGCGGACTGGTATCCGGGGACTGTGA
CTTGACGGTCCGCCATGGAGCCAGANCAGATGCNTGGAGGGGTACAAACGTCAAGGTTT
TGTCAGTAAAAATCCTTACNTCTGAAAAANGNGNGTTTTTTTTTAAAAAATTNC

Table 1

CCCNNAANCCCCNTTTTTTTTTTGGGGGGNNTTCCCCNTNNATCCCCCTTTCNCCCC
CTATGNGTGNAATNGGGGNTATTTTTTTTNTTTCNCCCCCNGGGGGGGGGGGGGGGGNG
NGNTNTTTCNTATTNNCCCCCCCCGGGGGGGGGGCCCCNNCNCCTTTTTTTTTTCTCCCC
CCCNTTTTTTTTTTAAANAACAAGGGNGNTTNGTTAAAAAANCCCCC
CCCCNTTTTTTTTTTAAATAAAAAAGGGGTTTTTTTTTTTNGGGGGGGGGGGG
GGAGGNTTAANAANAAAAANATTTTTTTTNTNTTANCCNTTNTTCCCCCCCCNCTA
TATTATTTTTTTTNTTGAANTANGNTCCNCCNNNNNTGTTTTATTNGAGGNATTA
TTATTGGTNTATTANCCNCCCCCCCCCNCNTTTTTTTTTTNN

Sequence 1033

TGAACTCTGTCCCAGGACCCACTGCCACTGGAACNCTGGGCTGGNGATACCCAGGTGGNC
CCCTGGTTGGNGGGGTNTAAAAAATTTTTTGGGGGGGGNGNCCCNAAAAANCCCCC
NTCCCCCAAAAAANTTTTTNTAAAAAAGGGGGGGGGAAAAAATTTTTTTT
TGGGGGGGGGNAAAAAANNNNTTTTTNGGGGGGTTTTAAAAAAGGGGGGNTG
TNCCCCCGCCCCCCTTTTTTTTGGGGGTNNNGGGGNTTNGGGGTNTTAAAAA
AAAAANGGGGNGNTTNGCCCCCCTNNCCCCCTTTTTTTTTTGGGGGATNNNNNNATTN
TCCCCCCTNTNCCCCCCCCAAAAAANGGGGGNNNNNGGGGGNNNNNNNTTTTTT
NNNNTTTTTTNTNTTTTTNNNNNNCCCCCCCCCTTTTTTTTTTGGGGGGGGGGGA
NCCCCCCCCCCTTTTTTTTTTNGGGGTNNNNNGGNNNNNNNTTTTTTTTTTAA
AAAAAANCCCCC

Sequence 1034

ATGAANNCTGGNCCTGGGGGATACCANNGGGGNCCNTCCCCCCCCCTTTTTTTNGG
GGNGGGGGGGGNTTTTTTGGGGGGGGGGGGGGGTANAAAAANTTTTTTNGGAAAAA
ACCCCCCNAAAAAANNNCCCCCTNCCCCCCCCAAAAAATTTTTTTTTT
AAAAAGGGGGGGGCNAAAAAATTTTTTGGGGGGGGNGNAAAAAANNNC
NCCNCGNGGTTTTTTAAAAAANNGGGGNGGNGNCCCCCANNNNCCCCNTTTTT
TTTTTTTGGNAAAAAATAGGGGGGTNTTAAAAAANNGTNTNTTT
TTTNNCCCCNNNTAACCCCTTTTTTTTTTTTTTGGGGGGGNTTNNAAAAANTT
ANNNNNCCCTNNNTNNCCCCCCCCAAAAAANAGGGGNGNNNGGNGANNANA
NNNNNNNTTTTTNCCCCCTNCNNTTNTTTTTTTNTTTCCCCCCCCCTTTTTTTTTT

Sequence 1035

TCGANGTACATGGGGTCCGTGCGGGCANAACCCAGGGCATGAAGATCCAAANGGGCTG
GTTACAGCTTTTTNTCCAGGGCCATGGCAGCTTTTCATTGGCCTTNTGAAGGTTTTAN
CCCCAACCTACATTCTTCCAANCTTGTGTCAATTAACCCCTTTTTTTTTTGGGG
GGGGTTTTNAAAAAATTTTTTTNGGGNGNNAATTTTTTTTAAANCCNTTTNCC
CCCCNTTTTTTTTGGNGTGTGTGGNNNTNTTAAAAAANNAAAAAAANGNGGT
NTNNGTTTAAAAANGGGGGGNGTTTAAAAAANGGGGGGGGTCTNCCNCCCNCG
GTGGGGGNTNCCNANGNGNATANTGGGNTTGTTTTTTTCTAATATNTCCCCCN
GGANGGNGGANNCCTATTTTTTTTTTTTNCCTTTTTTTTTTAAAAAANAGG
NTGGTTNTTAAAAANATAAAAAAATCCCCCCCCCTTTTTTTTTTAAATAAA
AAAAATGGGGGNTNCTNTTTTTTTTTTTNGGGANGTTTTATNGTATTTTTTAAAA
AAAAA

Sequence 1036

CCGCGTGGCGGCGGAGGTACCCCATGCTGTGGCACGGCTTCAGCTGTGATTGGGTTAT
TATACCCCTGCATTGACAGACATCTAGGAGAACCACATAAATTTAAAGAGAGTGGTCCA
GTTGTAATGCCGGTGGTGTAGNCAGTCTTTTGCCTTTTGGGGGGGGGGGTTTTTTA
AAATTTTTNTAAAAAGGAAAAAGGAAAAATTTTTTTTNNCCCCCAAAAAATTT
TTTTNGGGGGGGGGCCCCCCCCCCCCAAAAAAGGGGNNTTTTTTTTNGGGGGG
NGCCCCCCCCNTTTTTTTTAAAGNNAAAAAANNAAAAAAGGGGGGNTTTTTTT
TTGGGGGGGGGGGGGGGGGNAAAAAATTTTTTTTTTTTTNNNNTTTTNNCCCC
CCCCGGGGGGGGGAAAAAANNTTTTTTTTTTAAAAAANAAAAAACC
CCCCCNAAAAAANAAAAANAGNCCCCCCCCCAAAAAAATTTTTTTT
AAAAAANACNCCCCCCCCAAAAAANGGGGGGGGGNNNNNTTTTTNNN
NNTTTTTTTTNGGGGGG

Sequence 1037

AGGTACAAAAATTAGCTGGGCATGGTGGCGCACAACCTGTAGTTCAGCTACTCAGGAGGA

Table 1

TCAGGCAGGAGAATCACTTGAACCCAGAAGGTGGAGGTTGCAGTTGACCCGTAGATCATT
GCCCCANTGNCATTTTNCAGTGCNCTGGGGGGGGGNNCCCCCGGGGGNGGNAAAAANNCCC
CCNAAAAAGGGGNGNNAAAAAAAGGGGTTTTTTTTTNGGGGGGTNAAAAAAGGGGGGNN
TTNTNAAAAAANCCCCCTTTTTTTTTTCCCCCTTTTTTTTTTGGGGGGTTTTTTTT
TTNNCCCCCTTTTTTTTTTTTNNCCCCNCCCCCCCCCNAAAAATTTNAAAAANNNN
NAAAAAANTTTAAAAANTNTAAAAANNTTAAAAAAATTNAAAAAATTTNAAAAANNNTN
AAAAAANNNNNAAAAAATTNTNAAAAAANNTTAAAAAANNNTNNAAAAAANTNTNAAAAA
AATTTTTNTAAAAAANNNTNAAAAAAATTTNAAAAAANNNTNAAAAAANNNNNNAAAA
AAAAANNNTTTTTTTTTTTTTNNNTTTNTNNNNNGNAAAAAANNNNNAAAAAAANNNTN
NAAAAAATTTTTTAAAAAANNNGGGGGGGGGGGGTTTTTTTTTT

Sequence 1038

NCAC T NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCNAGCGGCCGCCCGGGCAGGTA
CTCAGGGCTTGTGGTTGTCTGCCTTGTGTTAGACATACCCAGGAATCTCATTACTTTGC
ATTGAAGACTGTTTTATTTTTGGAATGTTCTGAATGTTTCCAAACTGCTGAAGTGTGCC
TGAAANGGGGNTTTTTNAAAAATTTTTTTTTTTTNGGGGGGAAAAAATAAAAAAAA
AATTTTTNNCCCCCTTTTTTTTTTTTTNNCCCCCTTTTTTTTTTTTTTTTTTTTNC
CCCTTTTTTGGGGGGGGGGGGGGGGGNNAAAAAATAAAAAAACCCCCCTTTTTTTTT
TTTTTTGGGGGGGGGNNCCCCCAAAAAAATAAAAAACCCCCCTTTTTTTTTNCCCCCAAAA
AANTTTTTTTTTNNAAAAAATAAAAAAATAAAAAACCCCCCTNCCCCCAAAAAA
AAAAACCCCCCTTTTTTTTTTTTNGGGGGGGGGGNTTTTTTTTTTTTTTTTTTCCC
CCCCCCCCCTTTTTTTTTTTTTTTTTTAAAAAATAAAAAAACCCCCCTT

Sequence 1039

CGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTGAGA
CCGGGGAGGTGTGCTCTTTTCTGGAGGAGCATGGGCAGAACCATATGGAAGCTGGGCCCTC
ATGTGGCGAGCAAGTTTTTCAGGCCACCTGGAACACATGGGATGGCTGCTGCTCCACC
AGAGAGACCTGGAAGGATCTTGAGAACGCCAGTTCTCCGAAATCCAAATGGAACGACAG
CCCCCTCCCTTGAAGTGGCTACCTGTTGGGCCCCACATCATGGGAAAGGCTGTCAAATAA
TCTTTCCCAAGCTCCAAGGCACTATTGCTCCTTCCCCAGCCTCCAATTAGAAACAAGC
CATCCACCAAGCCTATCT

Sequence 1040

[illegible]

Sequence 1041

[illegible]

Sequence 1042

TGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATAGCTGTAAGGAGAAGCTGA
NAAATGATACCCAGGAGCAGCAGGCTTTACGTCTTCAGCCTAAACCCAAAAAAAAAAAA
AAAAAAAAAANGTACTGGACCGGGTTGCTGAAANACTCACACCCNAATACCCGCGTAC
CTGCCCCG

Sequence 1043

[illegible]

Table 1

A

Sequence 1051

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCAACATATAT
TTTACGAGGGTTATTTTGATCAGCTTGTGTAGTCAGTGCCAAAGTATTTAGCTGGTAGC
AGAAAAAGGAAAAGTATTCTCCATCTGTGATCACAGCCTGGGAGACAAAAGGTCGAGTAA
CATCTGCTTCACTCCCCGCGTACCTGCCC

Sequence 1052

CGGGCAGGTGGCCGCCCGGGCAGGTACTGCTAGTGCTATCGGTTGAATAAATAGGCTGAT
AGTTTCGATGATGATTAAGTATGGGAATTAGTGAGATGGGGGTTCCCTTCGGTNANGAAG
TGGGCTAA

Sequence 1053

CGGGCAGGTACAGATACTTGAAGCAATTCTGCAAAGACCCTGAGTTTTACAGGGCTGGT
TTTGGCTATCGTAAAAAACAANACACGCACACACACACCTATAGTTTCCTGCT
TGCCATAGGATCTCTCTTGGGAGATGGACAACCCTNAAAGGCACTGATTGGTTGACATT
GGTAGCTCTGGTCCCTACTCAGGCAGCCAGCTCATCCAAGGCCCGGTCCAAGGGATCCAC
TGACCAGTAGTCATTATCCAGCTCGAGGAACCGCCACAAAGGAAGGAGGCCTNAAAA
GCCTTTGCCTTAACCGACAGTTGATGGGGGGTCC

Sequence 1054

GGCCGCCCGGGCAGGTGCGTCGTGATCTAGATAGTGAGCGGACGCGTGGGTCGACTCAAG
ACTTTTAAAGATTTATCAAAATTTGGTGAGCCGAATCTCAGAAAATTTGGTGAATTCGGTT
AGTTCCCAATAGGCCGAGTAGTAATAAGTGAGTGTTCCGGATATANAAAAATTTTAC
GAATGGAATNAAAATTTCTAGGCGAATTCAGTGAGTCCCAATGGGACATGATTGTATGA
GTGAGCTTTTCAATATATAGCAACATTTTAGGTTCAAAAACTTAAAG

Sequence 1055

CGGCAGGTCTTGAGTCGACCCACGCGTCCGCAAAATTTAGCCAGAATAGCCAGACAAAA
AAAGATCTAGGGGATACAGAAAGGCAAAAGGAAGTCAAAATATCACTATTTACATATGAT
ATGATAGTATATTTAGTGATCCCAAAATTTCCAGNGGAGAACTCCTAAACCTGATAAAC
ACCTTCAGCAAAAATGGCTGTGTAAAAAATTAACCTCAAAATAAATCAGTAGTCTTCATCTAC
AGAAAAGACAAACNAGCCAAGGAAAGGAGATTAGCGAAAAGACACCCTTCATAATAG

Sequence 1056

AGGTACCATGTTTCACGTTAAATGCCAAAATGTGGTGCCTTCAAAGAAACAGTCAATGA
AACAGAAAGCAAAAATAAGCAGAAAATTAGAAACGTTATTTGGCATCATGAAGGGCAACA
CCAAATTTCACTACTAAGTGAAGGATTGATAAACACCATGATTTAGATTGAAAAAA
ATGGAAGCTGCTAATGCACAATGTTAAGAGATCTCCATGAGAACCAGGCATTATCCCA
TATAGCAATGATTTAATATTGTTACCAATTTAGGAAAAATGATTTTTGATAAATGGGCT
ATTGTAAGATATACCTTTTTATTCTTAGGAGCATGTGACCTGCATACGTAACAG

Sequence 1057

AGGTACAGAGCCAGCCAGTGTTGGGCAGCAGGCTCACAGCCTCAATAGGGAGAAAAGACA
AAGGCCTCAAAATGACAGGCAGCCTGACAGAGGAAGGAGTCTGACACCTCAGCTTGAGGC
GTCTTTGGAATTCCTAGCTCATCTCAGAATTATATCTTAGAGTGATAATATGGGGTGGA
GCCAGTGGCCAAACAGCAAGAACTAAGAGTGGGCCCTTGCAAAAAAAGGTTGGGAAAGCT
GGGCCCATATTGCCTGGTAAACCTTGAGCCTGATGCTCATACAGCTGTCCCTTGTTTTA
GCCAGGTCTTGACAGAAGGGTTACCAGCA

Sequence 1058

AGGTACAAAAAGTCAAGCCCTGAAGTAGTTTTTCCCCAAAAAGTTCTGATGTTAAACTT
TAAAAAAGAGAGAGGAGTAGTGTAATAATATTTTACTTAAATGTTGAACCCC
TGCACCACTTATATTATAAATGAAAGTTAACCTTCTACATACTAACATTTATTTGCCATT
CAAGAGTCAAAATTTGTAAGACTCACAGAATGTTAAAGCCGGAATGCCATTAAAAATAGCA
TATAAATGGAAGAACTTCGGTGAATTCAACAAAAAGTACCTCGGC

Sequence 1059

CCGGGCAGGTACTCAGTATAAAGTCCAGATGCCTTTACCATGACCTGCAAGGTTATACGT
GGTCTGACCCATGCATTTCTCCGTGACCTCATCTTATACTCCAGGTTTCTCTGTTTACT
CATTCTTTCCAGCCACACTAACTTGCCGATCTTAGAATATGTTGAGTTCATTCTAGCC

Table 1

CCAGGTCTTCAAATTTCTCCTCCTTTCTGAAATAGTCTTCTCCAGATTTTGGTGTGG
CTCTGTACCT

Sequence 1060

CCGGGCAGGTACGNTGGGGGGAGGATTGCATTCAGTNTAGTTCTGGTTTTNGGCTGAAA
TAACCTGACCGAGAGCATACCCCTGAACATGGACTTGCAGAAATCCACAGAAGAGAGG
AGACTGGCCTAGACAGACAGCCAGAGCTGAGGGCCCAACAGGCTTTCTACCTGGATGCT
GCTCCCATGCCCTGACACGAGGCCCCACTACAATGCTCTCCAAATGTCCACAAAAGTGAC
TTAAGTCAGGTTCCCCCAAACCAGACACCAAGACAAGAATCCATGTGTGTGTGACTGAAG
GAAGTGCTGGGAGAGCCCCAGCTGCAGCCTGGATGTGAACTGCAACTCCAAAAGTGTGC
CAGACTCAAGGCAAGGGCACTAGGCTTTCCAGACCTCTACTAAGTCATTGATCCAGCACT
GCCCTGCCAGGACATAAATCCCTGGCACCTCTTGCTCTCTGCAAAGGAGGGCAAAGCAAC
TTCAGGAGCCCTTGGGAGTCTCCAAAAGAGTCTAGGGTACCTN

Sequence 1061

CGAGGTACCTTCATGCTCTAAATCAGATGATCTACTATCTGAAAAGGAAACGACAAATCT
GACAACAAANGAATTTCAACACAGATAGGCAGTTGATAGCATGAGGCACTAACATTAAAC
CCAAGTCTTTCAATGGCACTTGGAGTCCCAGGGTCTGCCCC

Sequence 1062

CTTAGGGCGATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTATAGCGACATACAC
AGAGAATGCAGTTAAAACTCTACCTGTGATACATGAAAGCTTCAGGGGGCTATATATAG
CCAACAGTAATTGACTATTACACAAGAACCAAGAATTGGACCTTGAAAGGAAATATTCT
ATCTGGAGATTAAACAAACTACTTAGTAACAAAAATGAACATAACAAACATTAAAGGAT
AAGTAGTCTTCTGTGGTAATAAACTATCATTTTGAAAGGACAAAAAGATTATTTTAAAC
CCTGCTTAACNTTATGNNGTAACTACATTCCAATTAAACAGCATTTAAATTAAGAAAA
GG

Sequence 1063

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCACACCAGGAG
AGAAGATCATTATTAATGTGCTAATAGCAGCATTTTATTTTGAAACCCACTCTGCATGGT
TACAGGGCTCAAAACAACATATTCTAACAGGAAGATACATTACCGAAATATTTTAAATGAG
AATATTTAATATGCATTGAGAGGTCCGCATTTTCTTGACAGAGACCTTGATAGGTAGCTCTT
TGAGATTTCTGTCTCTATGCATTAAAGTGAAGGAGTTGGTTGGGTATTTTAGTTGGCAA
TTTTGCAGACATGTAGCTTTGGTAGTGGAGGGGGTAATAGTTACNCTGCCCGGGCCGGCC
CGCTCTTNGGAANCTAGTGNGNATCCCCCGGGGCTG

Sequence 1064

TATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACCCCTTTTAAGT
TTGCTTGGCTTTCTCAGATTCTGGTTTCAATTAACATGCTTATGATTTTCTGGGTTTGCA
GGGCAGATTAGTAGGCTTTGGTGTGGCTTTTCTTTCTTCTTCTGCTTTACGCCGT
TTGGGTTGATGCATCTGTGTACCT

Sequence 1065

CCGCGGTGGCGGCCGCCGGGCAGGTACTGAACTAGCTCCTTCTGGTTAATTTGTTGATT
GGATTGGAAATTAGAACATGGAGCTGGTCAATGCACGGTATCTGGTAATTGTGGATGGGG
GAGATGACTGGGGCAGAACTGAGCTCATTTTGGCAACATAGTACCT

Sequence 1066

CCGCGGTGGCGGCCGAGGTACCTCTGTGGAATCCCTTCTTCCAGAAGCCTCCACTCAC
TTCTGATGCCAAGGAGCTCTGCGGCGCCCTGCACGCACCTTTACAGATGCAGGTGGCTGT
TTCCTGTGTCAGACTGCAAGCTCCCGTGAGCTGGGTTTATTGCTCATCGTTGACTTGGCC
TCCCCGCGTACCTGCCCCG

Sequence 1067

CCGCGGTGGCGGCCGGTGCCACACTGGGCCAGGGTAGTCATCCTGAAATACATGTCCAGG
GTCTTGTGTTGTCTATGATGTGGGTGAAAGCTGCCTCAGCCCCGACCACAGTAGAGAGCGG

Table 1

GACCACCTCACGAAAGTTTATAGCAAACCTCCAGGGTCTAACCTGAAAGCAGCCAGGAACA
AAGACCTTTCCAGAAAGAAGGACATGAACAAACGCTTAAAGAACGACCTGGGCTGCCAGG
GTAAGAACCCTCAGGAGGCCGAGAGTTACTGTGCACAGTACCT

Sequence 1068

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGCTCTTGTTAATTCATTCAATAAA
CACACACAAAGCCCACTCTCCTTCCTTCAGACCCTATTAATTCTAGTGTAAAGAGAGATGG
GTGATGTTCCACAGAAGAAGCTAAGTTGGACTTTGAAGGATAAAGAGACGTATGGGAGGA
AAAGGCAGGAGGTAGAATTCTAGCCACAGGAAGAACCAGGTGAGAATAAGCTTGAAGATG
TTAGGGGAGAAGGAGTTGTCCCTTAGCCTTGATCCTTAGAAACAGACGTAGAGGTAGAG
GAAGCTGTGGCTGCAAAGGCAGTAGGCAAGAAAGTGAAGCCAAACGCCACCCAAGTGGCA
CTCTCATGCCCTCTCTAATGTCAGGATATGTTTACAGCCAGCATGATTTCCATATACAT
TCCTCCTTCACTTC

Sequence 1069

AGGTACTCACTTATAGATGGTTATTGGCCAAAAATACAGACACCATGCTATTATCCACAG
ACTCAGAAAAGCTACACAAGAAGGAATGCACAAGTGAGGATGCCTGAATCTCACTTAAAG
GAGTGCATAAAGCAGTTCCTAAGAGGAAGACGGAGGGAGTGAAGTGAATAGAGAAGAGAT
ACGGAGGGCTATGGGATGGGTTTGAATCAG

Sequence 1070

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATACGCGCATTGT
GTGTGTGTATCTATGAGAGGGGGAATTAACAAATTACATGGATTTGTGTATGTGTGTG
CCTAAGAGACAAGGAAGGAAAACAGTGCAGTTGAGAAAGGTGAAGCAAATGTGGCCAAGT
ACCTGCCCG

Sequence 1071

AGGTACTTTTTTTTTTTTTTCTGAGGGAGATGGATAGGTGAAGTAATGGTTGACAAG
CATAAGTGGGAAGCTTCAAGTCCAGGTTCTCCCATCAAATCATTTTCTCACAATCTTGC
TCAGTATTCTCTTCTAGTAGGCCANAATTTGAAGGATTAGCTCTCTGTATATCTAATCTA
AATCCTACTCCTTGTTTTAAGCTCTTTGATTTCAAATATTAATGATCTGGTACAGCATCG
CTGGTGGTTTCAAAAACGTAGTCATTCTTCTCACTGCAACAATGTAAGATAAGCAGGGT
AGATCTGTTATTTCAAATTAAGGTGATTAAGATATATGGAGAGAGAACATGGCATGTT
GAGGTTTATAGGGCTAGAA

Sequence 1072

AGGTGCTAGCTTGAGTCGACCCACGCGTCCGCTCAAGGAGAAGGAAGACCAAAGTATGCA
GGAAGGACCCTAGGGCCTTTCACCAGCTTACATCCACCCACCTTGGGCAAGGATAGGTTA
GATTCAGTTTCTCTGCCTCCCGCCATGGCTAGGCATTCTCAATCCACAGGAACATTCTTG
AGTAGAACATTCCCAGAATGATCTGACTGATGCTTGCTAGCCAATAGATTTAAAGGTTAA
TATGCTTAGCCTATAAGTTAGAAATGTAACCTTTCTGAGGTAACCTGTGCCCTTAAAAAG
TATAAG

Sequence 1073

AGGTCACGCGTCCGCTGCTGGGCTGAACCAACCAAGATGGAGTGGCAGAACCCTGGGAG
CTGATCGGGGTTCTTTCTAGTAAGTAGTTGCCAGGCCTTAGAACTGATTGGTGTACACCTA
CTTCAGTGTTCAATTCATTTCAATGACAAGATCAAATCAGATTTTACAGGATGACCAAGA
TTCTGAGTTTCTCCCATGGCAACAAGTTCTCAGGTTAAAGTCTAGGAATGGTCATACTTG
CAGCTTGTTCTTCCAGAAGACCTGACTTTGGTTCCAGAACCCATGTTGGGTGGCTCACA
ACCATCTATAACTCCAGCTCCCGAGAGCCAATGCCCTCTGACCCCAAGAGTGCCTGCACT
CATGTGTATATATCCCATAAATTAATAATAATAATAA

Sequence 1074

CGGACAGGTTGCAGAAAGGGAAGAAATGCCAGAAGGAACCAATGAAGGATGAGCCCAGCT
TCCAAATTTTGATGAAAGCTTTTCTGCTCTACATCAGAGAAATTCTGCAAGATCTTAGAAG
GATGCGCTCAGAGAGATTCACACCTAGAAACACCATACTCAAAGGGTAAGGAGAAGAGAG

Table 1

CCCCAGGGAAGAATACAGAAGGGGACACATGACTGGCCACACAGAAAGCTCATCAGGAAG
AAACATGACTCCCTGTCAGAAACCCAGGGTCCAGAAGGAGTGGGATGACGTTTGCTAAG
TTATAAAGCGAGCTGTGCACCCAGATTCTATAC

Sequence 1075

CCGCGGTGGCGGCCCGCCGGGCAGGTACCCCAATCATTTGCCTGCATCCTTCTCTTCTCA
ACAGACTCAAGAAGTAGAGACGCTGACTTTTTTGTCTTTGTATCCCTAGGACTTAGCACT
GCCACCAAATACAACCAAAGTTTGTCTGAGCTGACATGATTAAGAGCCTATCTGTGGAAAA
GTATGATCGGTCTTTGTGAAGTTGCAATCTCTCAGAGACTTGTTTTGTGCCTTTACAAAT
AATAGATTTTTTT

Sequence 1076

CCGGGCAGGTACTACTGGCACTGAGCCAATGTATGCTATCAAGGAAAGCTTTATCTGTCA
CTGAGCAAAGGGTGAAGTTCAATTAGGTCACTTTTATCACTTCTTTTCTACACACAAAC
TATGAGGAGAGATCATTTCTTTTCTTTCTTTTATTTATTTATTTTTTTGAGACAGGGTC
CCTCTGTGCGCCAGGTAGAGTACCT

Sequence 1077

CGGNCAGGTGCTTGAGTCGACCCACGCGTCCGCACTAAGATTNTAAGTGAATACCACCAA
ACCCAGGAATAAACTGATTTTTTTTCCCTCTTAAGTGGAAAATAACCTGAATGNTACN
CAGNTAAAAAATGAGATTGGNGGGAACNTAAACGACCCGGGCTGNTGTTTGTCTCCAC
AACCTGATGGCAAGGCCCTGTGNTGGAATAACACCCACACGGTTNACTGAACATGGGA
AGTGGAGCTGGTGCNTTTNTAGAGTCTTNAACCCCATTTGGNTGGCGTTCTTGAACCAGA
GGTAGCCTGCATGC

Sequence 1078

AGGTACCCAGAAGAAGGTGCAGATATCTGATTGAACTGTTTCATCTTACCAACTCTTCT
ATTGCAGAGAAGACTAAGGTCCAGAGAGGGATAGTGACTTTCCAGGTACACAGGAAGC
CACAAGAGCACATTGAAGCCAGATACACATTGTCAAAGCACGCATGTCCAGCCGAGCAA
GGACCCGAAATGCTGATTGTTTCCCCTGCAAGGAGGATCCTGAGTTTGTCCCGGGAAAG
GTTTAAGAGAACTGGCAGGAACACAGCCTTCATTCTTCTAGGTCCGGTTACCCCTG

Sequence 1079

CCGCGGTGGCGGCCCGCCGGGCAGGTACACACCACCACCTCTGGATAATTTTACTTTTTT
TATTTGAGACAGAGTTTCGCTCTGGTTGCCAGGCTGGAGTGCAATGGCGCGATCTCAGC
CCGGGTGACAGAGCGAGACTCTGTCTCAAAAAATAAAAAATAAAAAACAGCA
TTCCTTGGGAGGCTAAGCGATCCTCCTGCTTCAGGCTCCCAAAGTGCTGAGATTACAGGC
GTTGAGCCACTGCACCTGGCCTCAACTATTTTTTAAATCATGTCTGAATCTTAATTCTC
CTAGGGATACTTATTCCTCAACTAACACAAGTTGAGTGACGGGATGGGCCCCACTACATT
TANTAAAAAGAAAGGTACCTCGGCCCGCTCTAAAACTNGTNGGATCC

Sequence 1080

AGGTACAGCTAGGACAAACCTTGACTCCGGGTCGAGCGCTCATTGTATAACATGCAGTGG
CATGGCCCGTGGTTAGGAGGAGTCTGAAATCAGATTGCTGAGGGTTCCGGATCTGGTTCT
ACCACTCACAAGTGACTTCGTAGGCCTTTCTTATATTCTGATTTCTTATATCTGAACTGG
AGCTTACACATGCACCAGAACTCTACAGGGATACTGTGGGGGACACACAGCTTGAGGTAA
AGTGGTTACCAAGAGGCCAGGCAGTTGGGGGATCACCCATATCACAATAATTTGTCATTG
AGCATGTAGTTTCTCTCTTCATGGGATGACA

Sequence 1081

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAGCTAACACTTATCC
TCCAGTGCTCTACTAATTGCTTGGTGCTATGTTGACTACTGGGAATGAACCACAAGATAC
ATCACTGTAACTGCAGGGAGNGCTTCACTGATCATGAGGTNAAAATCTCCCCATCATCA
NAAAGAGAATTCTTTACTTAACCTAGTGGTACCTGCCCC

Sequence 1082

AGGTACACATTTTTTTGTTGCAAATAGTCCTGCAGCTGGTTTTTCTAAAAAAAACCCCA

Table 1

AGAATACATATAAATCTGAGTTCCTATGGCGCTAGTNTACTGGGCAGACTTCTGGTCTG
GGGTCTTTCTTTNTTTAATAGCCTTCTGAAAACCTCANTGCCACCAAATGCATGGATC
GTAGCACCTAGTTCCTAAGTGTGTGCTATGCTTTGGTCTAATATCCAAAGAGATGTCTAAA
GCAANTGTGCTTGCTTTTCATGA

Sequence 1083

TTAGGGCAATTGNAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTTGGTCTCAAACCTCCTG
AGCTCAAGTGATCCTCCACCTTGGTCTCCAGGCGTAAGCACTGCACCTGGCCTTAGAA
ACCTCTTTAAAAGTGGTTGTGGTATCCTCATAGAATCTAGGAATCCATTACTCAAAAAAG
CAAGACTGCAATGATACACAGTACCTGCCCCG

Sequence 1084

AGGTCGACCCACGCGTCCGTGTATCTCCTACAGTTCATTATGCAGCAGACACGGATGTAA
ATGGGGACAAANATGAAAATACCNACTCAGACTCTTTGTGAGACGTCANCATTTTTTCT
GAAATGGCGCAATGTATTCATTTTCCA

Sequence 1085

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTCTACA
GTGAAACTGTTTCTACTGTGGCTTAATTTGCAAAATCCAAGCAGATATTACTTTTAAAAA
TCCAACCTATCTCTTCAAAGGATTTGTAAAGTTGCTTACAGACATAAGGTGACATCAGAA
AAGCATGTTGGTATAATGCAATTAGCTAAGGTTTCTAGGAAGCTTTGGAATGTTTGT
TTAAAGAAGGCATANATAAGTGCAAGTCTACAAGTAATGAACTGTCCTAGAAGCAAAGA
AATTCAATTAAATAGATCTCCTTGATTTCTCCTTCATGGCCCCATGTCCATAGAGATTGGG
GAATGTACCT

Sequence 1086

CGGGCAGGTACTGACTTAAAATAACAGAGTAACCTGTCTGGCTTACTTGTCTCTGAAAGT
GAATGTTCAAAGTGGGTGGAATNGAAATCACATATTAACGATAGTCCATACTTATATGCA
AAGCCATATGATTCCCTAAGCTACTTAAACTGGAATAAAGACACTAATAAAATTTTCATA
AAACATTGAACCTGGTGCCAGCCTCACATTAACCCATAGGTTCTTCACGATTAAGGCTG
ACAATTTTAGCTACTGCTTAGAAAGTTGCAACACAAATAGGGGGGAGTTAATGTTCCA
TCAGAAATTAACCCAANCTGGTTTTGAAACTCTACTTGGCACTTA

Sequence 1087

AGGTCTTGAGTCGACCCACGCGTCCGCCTAGGTCTAAGAGCTGAAGCTATAACTGCTAAG
AGGCCTGGGACTCTGTGACACTGAAGTTTCAAGCAANTGTCTTAANAAACAANAACAGNAGG
GGCTTGGAGAGATGGCTCAGNNGGTTAAGAGCACTGACTGCTCTTCTGAGGTCTGAGT
TCAAATTCAGCAACCACATGGTGGCTCACAACCATCTGTAACGATATCCGATACCCCTCA
TCTGGTGTNGTCTGAAGACAGCTACNTACATAGAATAAATCTTAAAAAAAACAAAAACA
AAAACAGAGAAATAGGAAAAGGAATGGGGGAAGAAAGGGAAG

Sequence 1088

CGGCAGGTCTTGAGTCGACCCACGCGTCCGCATTATTGTGGGCCTTACTTCATGCCTTG
CTAGGCAANTAAAGATACTTTAANACAACCTATTNAATATAAATCTTCAAGTTTTTTC
AAAGAACCTTATTTTATTGGGGTGNTTGGGNCAGGGTTAAACGNGCCAGGAAAATNGGGA
GGNAAACCATGNAAAAAGNAATTAANCNATTTCCACCCATATTTGGGGGGTTCCAAGAT
GGGANAAATTGGAAAATTGGTTTTAAGTAAGNAATTTGNGGGGTNGGTTCTTGGCCCAN
ATGGCCTTTTAGGGGGTNNGGAAAAATTAACCTTTTGGGGTTTGGGAACCTTTTNGGA
AGGNAAGGGGGAATTTGCAAANGNGGAAGNNGGGGGCCTGTTTTTCTTTGGGGTAAGGC
CAAAAAANGNGGGGNAATTTGNGGTTTTTGGCCAATTGGGGGNGGTTGTCCTTNGNGG
CCNNAGGNACCCGGGGGANAATGGAANGGGGGGAAAAANGAACCANTGGTANGTCCCAAN
NGGNAAAGGNAAAAANNGGNAAAGNNGGGGNG

Sequence 1089

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATGACACAAAGTAACCTCTCAT
GGCTGGATGTGATGGAGGATATCCAAGCACCTGGCAGGCATTTGTAGAGATCCCCGCTAA

Table 1

AGCCCCCTTCAGCTATAGGATTCTATGATTCTTTTCTGTGAAAATTTGGAACACCGTGA
TAGTGTANTTACCCTCTCCAGATCATAGGGGACCATTAACTTACTACATTAATGT
ATTAAATTGTACCTGCCCCG

Sequence 1090

AGGTACGCGGGGAAGCAATGACGTGGGGAGAGAGCGCGGAGGAAGGGAGAGATCCAGAAA
GGTAGATTCTTCTGTGTAGGTGAGTGGATGAGATAATGAAGCAAGTTAATTTGGGCTCTG
CTGACTTATTTATCTGTCCCGGGCACTTTTCTCCGTACCTTGCCCGGNCCGGC

Sequence 1091

CGGCAGGTACAGTAGAGACACCATCTCTGTTAGGAACTGTTAGTGGCTACCATGTGTCC
CTAAACTCCCTAGCTTGGTAGTCATAGCCTCACGTTCTGCTTCCAGTTACTTACCTGTCA
ATCCTTTTCTTCTACTGATCCCTAGTGCACTTTTAACACATCCTTATCCTCTTTGTCTA
TGTCTGTTTGTCTATTCTCTGCACCTGCCTTTCTCTCCCTAGTCTACTCCCGCATAC
CTTAAATGCTGCCAATAACTTGATTATGGCTTAATTACTTAATTATGCCAACTGAAAGGG
GTCTACCGTGTAAAGGGCTTTGGCCCTA

Sequence 1092

NGATTACCTNGTNCGCCCTTTTCTTCCCTTTTCGNGGTAAAGCCGGTGGGNCGCCTTT
TTCTTTCANTAAGNCTTCAACAGCCTNGATATGGGTNATTNCTTCAANTTCTCNGTGTN
GATAAGTGGTCTGTTTTTCNGNCTTCCCCAAATGACCTTGGGAGGCCTTGGTTGGTAGT
CCAACCGAANACCCCCCCCCACANGGTTACAANNCCCCGNACNCCGGCTTTGTCGCCTC
TTAATTTNCNGNNTTAAANCTTATCCGGTACTTTGTAGGTTTCCCAAACCCCCGNGN
TTATAAGTAACCAACCNGAANCCTTTTAATTTCCGGCC

Sequence 1093

AGGTACTCTTCTGGTTGCCTTGACTCTAGTCCTGATCAGAGTGCCCAGCAAAGAACATTA
TACGCACTGTCCCGGCACTGTCCTGTGACATAAAAAGCAATTGACCTGATATCAGATTCC
CTGGGATAGGACCTGAAAAAGAGTTGAGGGCAGGCTCTGCATTTTGTCTTTTCTGATGC
AAATGAGAACGAAATAATTTTTTCACTTACTTTATCCTATGGTGAGTAGAAGCCACCA
TGTTTCCTGTGGAAACCAGGGCGGTGGCATGGCTTCTGCTTCTGTCTGAGAGAACATTGC
TTTCTGGGACTTATCCCCCTTTA

Sequence 1094

GGCCGCCCGGGCAGGTGCAGAACGCTGGAGAGGGTGCAGTCTCTGTGAGGGTGAGCGGTG
TGGTGCCCTGGAAGGACTCCTTCCCACCACTACTAAGCAGCAGAGGCCAGGCAATCACA
GGCTAGGAGCCTTCTGACCCAGGAATAGGCATTCCCGCATCCTTAGACCACACAATGCAT
GCCCACTGTGTCAGTGCAGAAAGAAAGGATAAAGGTGGCCATGGCTAGCTGGCCATGCAAG
GCACTCACCAGCGTTAATGAGACCTGGCCGNGCAAGGCAGTACTCTGATGGTAAGTACAGG
GCTTGTCTCCTTGCCATGAGAAGAGTTAGGGACACAC

Sequence 1095

CTGAGTGGCTGGGACTACAGGTATGCGCCATACCTAGCTAATCTTTTTGTATTTTTTGG
TAGAGAGAAGTTTTCGCCTTGTTGCCAGGCTGGTCCGAACCTCTGAGCTCAAGTGATCT
GCCTGCCTCAACCTCCCAACCTGCTAGGATTACAGGTATGAGCCACCCTGCCTGGCCAGA
TTAATGAACTTTATTAATCACTTAGTTNTGCTAATTACTATCTTCCATAATGTTTG
AATACAACGCTATTGTAGTTAATACCGTTGTTTTGCGGTTATTTGCTTACATGTCTGTT
TCTGCTACTGAATTGTAATCCCTTGAATATAGGGAAAATATATTTGTATCCCTACCATC
TGAAAAGAGTACCTTCGGNCGCTCTANAACCTAGTGGATCCCC

Sequence 1096

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTAAGCCCTGCTTGTCTG
CAGATCCAGAGAGCCTTAATTGACAGATTCAACTGTGCCTATTCCTGAACCAATTCTGAT
CAAGAAAGTGGTCCCACCACTAGTGCTGACAGGAATTAGTCTTTGCTGTCAACTAATG
GTTTCCAATTAAGGGCACTTTTCCACCCAGAGATATTTGTCAATGTCTGGAGACATCT
ATGGTTGTACAGCTGAGGGAATATTAATTAATAGCACCTAGTGGGTAAAGGTGAGGAAT

Table 1

GTCATTAAATACCCTACAATGCAGAGGGTAACCCCCCACCACAGAGTACCTCGGCCGCT
CTAGAACTAGTG

Sequence 1097

CAGGCAGGTCTAGCTTGAGTCGACCCACGCGTCCGATTTAGAAGAGCCAGAAATAAATA
AAATATCTTGGTGTAACCTTTAACTAAGTAAGTAAAGAACTGTATGACAAGATCTTGTCT
TTGAATTAATAATTCTGAAGATGACAGTAGAAGATAGAAGATGCTCATGAATTGGTAGGA
TTAACATAATAAACATGGTGATCTTACCAAAGGCAATAAACAGACTCAACACAATAACTA
TCAAACCTCCAACATTTTTTTATTAATCTTGCAAGAACACAACCTTAACCTCATAAGTTGA
ACAAAATAAACAGTATATGTCCAGCCTGGCTTGGCCCTTCAT

Sequence 1098

TCTAGAGCGGCCGAGGTACTCAAAATCCTAACCCAGAGCATTCAAACAACAAAAAGTAGGT
TAAAGGGGATACAAACTNGGAAAAAGAAAGNAAGGTCAATTAATTATTCACCTANTTTT
GCCAGTATGGAATNATGNATTAGGTTTTTACCTTTTAAAGNTGACCNCCCCAAAAAAGGT
TTCNCAACTCGGGAAGNAAAACCTAACCTATATAGNCNTTGAATTAACCAACCAANCTT
TTCCGAACCAAAAGGGGTNANGCCTTGGGGGGTTAATTAACCAACCAANCTTCCA
AANTTTCCAATATTAAAGGNCCCCCTTTTNCCTTTTNAACCTTCCAAAAAAGGGGGAA
TTNAAAAATACCAAGGGGGNTNTTGGGAAGGNAAAAAANAATAATTTTAAGNNGGGG
GGNAAAAAANTTGGGAACCAACCCCCCNNTTTTAA

Sequence 1099

AGGTACACACACACACACACACTCTGCAGAAATTACTCACAGTTTTGGCCTGTAAGCA
GTATTCATTCTTCCATTAAATCTGCTAGTATTAATATAGGTTTTCTCCATTTTATATTC
CTTTGACTATTAAAGTAAGAATTCAGGACTTGGAGAGAAAGTGGAATTTCCATTTAAT
TCATTAAGTTTTAAATTATTAGCTATACCAGAACCCTTTATTATTATTTATGGTGTATG
GATATTTTGCCTATATGTATGTTTGTGCACCATATCCATGACTGGTTGCTTGAGGTCAGA
AGTAGGCATT

Sequence 1100

GGGCAGGTCTCGTGCGGACGCGTGGGTGCACTCAAGCTAGCANATGGAAGCTAACTGCCC
ATTGATAAGTAAAGTTTTTACAAGACGTAGAACAGTNTTGTCTNGTNATACATTATCTT
TGTTNNATTCTTATGAGAAATCATATTGAANCATCAGGCCATNNTTTTAAAGGGTGATA
TTGGCGCGTGNAACCCCTTTGGCTCCCATTTCTTAAATACCAACCAGGTATTCGTTTGGA
ATAGNTTTGGTAACCAGGAAGTACCTATTCTTGACCCCCATAAAAAACCTTTAANGGT
TCTTACACNNTGGTTTTTGAAGNATCCTTATTAGGAAAAAAGGGTNTTGGCTTTTTA
TAATTNCTNTAACAGNTTCGGTTTTAATTATTGTTGGTTGGGGGGTTTGGT

Sequence 1101

CGGGCTGAGCCGGGAGCCTGAAGCCCAGCTCNGAGTTATATTGGGGACAGGGCTCCTTTG
GCTCNTGGTAATGGAGNAAAGGGCCTTGANGAATTTAAANGGGAACNCTTGAAGGGGAAC
CAANNAAGNAAAGGCCACCCCTTCCAATTTAATNTTGGGGTTGGTTGGTTCCCTT
CGGAGAAATACCGAAAGNGGCNCCATNTNTTGGTTGGGGTTGNCTTTANTTTCAATTT
TNCCCTTNCCCCGCGGGGGGGCTTTAAAAAACCAA

Sequence 1102

GACGAGGGCAACCCAACACCCTAGCCTAAAGNCCCGTTGACAACCTGCAGNCATGGGTTGG
CTTGGCCACCGCCTTGGCANCCGNTCACGNAAGGAAAAAAGNCCGCGGGCCCTTAAAA
GGCGGCGGAGGTTCTTGGGTGAACCTTGGGGCANCCCCACCGGTTGCCANGGCCTGGA
TTGGGGTNACCCNCAAAAGGCCTGTCCCCAAGGCCCGNAACCTTGGGGAAAANGAAATGG
TTCCTTTTNGNGNNAAAAAAAAAAATGGAACCCCGGTTGGGGGNANGGCCCTTGGGGG
GGCCTTTGGGGAAGTCCNCCCGNAAGGGGTCCCCGGGCCTGNTTGGCCGGGGNCCCCA
AAAANTCCAAATGGNCCANGGGGNTGGGGNCCAACCCCCG

Sequence 1103

AGGTACCTAGAATATTTATTTAGATAATATCAAGATTTACCTATATTTCTACCAAAGAC

Table 1

AATGATAGGTTTTTTTTATATAGTTGGAGGGCAGGGATAGTGTTTAAAGGTTTATGATG
TATAAGCACGCTTAGACACACCAGGAGAAAGTATCAGATCTCATTACACATGGTTGTGAG
CCACCATGTGGTTGCTGGGATTTGAACTCGGGACCTCTGGAAGAGCAGTCAGTGCTCTTA
TCCACTGAGCCATCTCTATAGCACTTTAAAAAAATATTAAGGCATCATACAGCNTTCT
GCCTCTATGTATGCCCTGCA

Sequence 1104

CGGGCAGGTCTTTGTCTCTCAAACCTTTATACTGTCATAGTTCATTTTTCTGTACAGAT
GCTCTTTCAACTTTTTTTGAGAGTATATACATAACAATTGCAGTTGAAAGTAGGGTGGGG
TTAGTCTCCTGGTCACAGTTCATAAGTACGGACGCGTGGGTGCGACTCAAGCTAGCTTG
TACACCTN

Sequence 1105

TCGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTATAGT
GAGAGCCAAGTCTCCCTTATCATTGGTGAATGAGGATGAGCTACTGAAAAACAAAAGAGG
GTCTTCTACTCAGCCTCTACCCCTAATATTATATCAGAAGCAGAGATTAAGTGTCTTA
CTCATTACACGTTAATGGAAGAGAAGGAAGTTTCTAGAAAAATCCTCCCGCTCCACCC
TGCAAACCTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAACTATTTTGA
ATTGGTGGTGTGAGGCTAAATCTCTGCTATTGACAGAATTGAGAATGTGATCAATTTT
AGAGTAGCCATGTTACAAATTTGTCCCAATTTCAATGGGGGAGGAATTATAACCAAATC
AAGTAGTGGTTGGGAAGA

Sequence 1106

CCGGGCAGGTACGCGGGGAGTTCTCTCAGGCTCTCCAGAGCTCAGGACCTCTGAGAAGAA
TGGAGCCCTCCTGGCTTCAGGAAGTCTGCTCAGGCTCAGGCTCAGGCTCAGGCTCAGGCT
GCATGTCTCTGCTGCTGTTTCAGGTAATCAGGTTGTACCT

Sequence 1107

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGAT
GGAAGGAAGAACTCGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTA
CTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACTATTTATAAACATCCTGCAGG
AAAATGCAGTAAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATCAAGAG
AAGATGAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAA
ACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGA
TGGTGTGTTGGGAGGTGGAGCCCTTCAGAAAGGTAATTAATGCCCTTGTAAGAAAGAGGCC
AGNAGAGCTTGCCGCACC

Sequence 1108

GGGCAGGTACTTGTCTGATGGGTATCCAGAAGAGTTTCATGGAGATCAGTTCACAACA
TTGGACAGACTATGAAACAAAGTCTGTAATATCATTATATACTCAGTATTGGTAGGCTTTT
TCCTTAATACCCCACTCCAACAAACAGACCTGCCTTCACTTCTCTTGAAAATATTATT
ACCATCAGTAACTGCTTGTCTACTATGTCTCCAAGGCAAGCCACAGGCTATAAGCCAATT
CTGCAAAAGGGAGCAGCAAAAGAAATGCTTAGTGCAATTCCTCTATTTAAAGTTTGCTT
GAGTTTTGATTATTTTGTATTTTG

Sequence 1109

AGGTCACGCGTCCGACCTAGCTTGAGTCGACCCACGCGTCCGATTTCTGGTTTCTTTGGA
GACTCGGTTGTCCATGTGATGCTTTTCTGGAACTGTCTTATGAGAGGAAGCTTTTGCT
GAAGCAGACACATGGGAGAATGTTTTGTTAAGAACAGACATGTAGTATTTTCTAGAGGC
AGCTTGAATAAAGAGCATGTGGTATTTTGTAGAGGGGACACTTGAGAGAACATGTGACA
TTTGGAAGGATATATGTATAACCTAAAGGACAGTGGCCAATGCTGTGTGGTATTTGGG
TGTGCCTTACCATTCTTTGCTGGC

Sequence 1110

TCGTGATCTAGATCCCTATAGTGAGCGGACGCGTGGGTGCGACTCAAGCTAGGTGCGGACGC
GTGGGTGCGACTCAAGCTAGGTGCGGACGCGTGACCTTCCCCAAAATCTCTTTTTTTCAGA

Table 1

TGAAAGTCATACACTCAGCTTTCATATTTTAATATACATAAAACAGCTCAGTGACTGGGA
CACTTCCTAACCTCCATTTGGGTAATTCACCTCCCTCCAATAATCCTGAGTTATCATTTA
TTATATTTTGATTTTACCTTGGCTGCACTGGAGCCAGTTGGGCAGCCCCCTCTTGGGCCT
CACTCTCATGTTCCCTACATGGGCAG

Sequence 1111

CGGGCAGGTACGCGTCCGCATGCCTACCCGGGCTTTTTCTGACTCCGTGAAGCTGATCT
CTTCCTCATTGAGGAAGGGTAAACCCCTTTGTAGATGGGTAAACCCCTTGTCAGTCAGAGA
CAGTAGCCATCCCCTGTAATTCAGAGCGCAAGAGACTGAGGCAGGATAATTACCTAAAC
CTAGGAGTCCAAGATTTGGCTAACGTAGTAAGACCTGTCTCGAAACAAAACAAATCTTGA
GGGATGTGATGCTTGCTTAGTGTAGATTGTGTGATTAGGATACACAGGGCACTCAGCTT
CCTATCTCCACTGAAGCAGTCAATTA

Sequence 1112

CTACTGAGACCATTACAAAATTAATGGTGACTTTTTAATCTGGAATTGCAAACCGACAG
CANCTGTCTGGGGAGCTCCATGTNATGAGTGTATGTCTCCAACAGNCTTCAATGACTGA
CAGGTGAAAAGCTGTGCCACAGCCTGGAATTATTATGCTGACACACAAAAGAGGGCGGGA
GTGACAGCGTGGTGATCTACCANTGCTGTCTGTGGGGNTAATGGTAAGCTTTCCCACTGC
TAATGGTTTATNNANAGAACAAAGAAAAGGAAAACGGTGCANGGAAAATCAATANNTAT
TAACATAGTCATGGTAATGAATGCAATCCNTTATTTCTGGGAT

Sequence 1113

AGGTACATAAAACTTGTAGAGATTTACACACGCCAGCCGACATCGCCCCCTTCCAATGG
CTTTACATCTTGGTGACCTTTTCAAGGCCAACGGCACCCCTTCTGTTGTTACCCGTAATT
GGAAAAGCATCAGAGATAAAAAAAGTGC

Sequence 1114

CGGGCAGGTGAAACATTTTTATTATTTATTTTCTTTGTTACAAAAGGACTAAGTGGTTC
TGAAAGCCAAGGCAGAGTTCATGTGTCTGGGCTGACATTCCCATGGCCTATGAGCACTGA
GCAGCCACAGGCTTTTCCAAGGAAGGCCCAAGGCCATCACATCCCCATCTACATCTACAA
TACTTGAATGTATTTACATGTGTTGTTCTTTAAAAAGGATTACACATTTTATCTTTAAA
AATCTAAAAAATGATGGAGAAAAGGAACACAGTTTATCTTACACATTTGCAGGATATACA
AGGGTAACT

Sequence 1115

TTGTGTGGATTACTTGTGCCCCACTGTCCCCATACCCTCCACCCCCACATGGTGTGCTT
CCTCCAGAAAGGGACTACTTCTGCTGACCACACAGAAGACGTGTGTAAGTCTGTGTATC
AATGAATGGATTCTCATCTTTCATAGTTTTTTTTAAATAGTTTTATGTAGTGTTTAACT
AAATTTCACTTAAAAAGATATTTACCAGAAGCTGANAGTANGGTGTGATGAGGTGGGT
CANGAAGGACTGNTATCACATGGCTTCCCTAAGGTTGTATATTACATTGCTAGGACACCT
GACA

Sequence 1116

CGGGCAGGTACTTTTCTCTTAACCTTACCTGACTGAAGGCATCCAATCAGAAAGGAAAGTG
AACAAAGTATAATGTTTCTAAGTGAGTCCAGATGGTAACAAGAATTCAAACATTATCTTT
TTGTATGTTTAAATAAAACAAATTTTACATTTATTTGACCAGCAGATATAACTTCCTGG
GCATAATTTTATTAGCAAAGAACTGATGATACTGGTAATAAAAAAAAAAAAAAAAAATGAA
AGGAAAAAGGAGAATGCACCTCAAACCAGAATACCATAACATGTTTTGTGGAAGCTGCAT
TTTATTTGAAAAC .

Sequence 1117

ACTTTTTTTTCTCTGTAGGAAGTCAACGATAGAGTGACATGTTGGCTCTTTCATTTCAA
CTGANACACCTGGTAGCTATTGGATGGCATTTCTGTAATTATGAATAGTAGTTGTGATAG
GCTTATTTGCACCTTGACATTCTCTTACTTGGGAACGCCATCTCATGCCATTTCTACGT
TTCTTATGCAGTTAGTTTGGGGCATGNGGTANTCCACTGGAAAATGACTCAAGCGTGGAA
TGTATTTATGATCACAGATAAGGAAGTGGCCGTCCACAAAGCTTTGGATGGTTGTATTTG

Table 1.

TCATTTGAACA

Sequence 1118

AGGTACCTGCTTTGTGATACTGTGAAGATTAGATAAAGCAAATATCCACACAGGAAAGCC
CTGGGTGTTAGCATAAAGCCGGAGTTGAGAAGGCCAGCTTTCTATTTACGTGCTGAACGA
TGAATAGTTAAATAGTTTCCGTCTGGCCACGTCTTACACACACCCCTTGGGTTTTCTT
CTCTTCCCTGGTAGGACTGCATCGGACGCGTGGGTGCGACTCAAGCTAGACCTGCCCCG

Sequence 1119

GCGGGCAGGTGTCCGCTCACTATAGGGATCTAGATCGGACGCGTGGGTGCGACTCAAGCTA
GCTTGTACAAAACTTTCAATAAAATGCTTCAAATAATGATTGCCGAAGCTTGCTAGAC
ACTTTGTAAATGTCAGGAACACATTAAATATGTTAAATGAGCATGTCCAATATCCAGAAA
ACAACACGAATGATTTACTATCAATTTACACATGCCTGGGAATGTCTCCCTGATGCAAG
ACAAAAAGGTCCTCTTTGACCAGAGCATACTGACCCCAAGTTTGGTCCTGGCACAGTAT
TCATGGGTGCCATTCAT

Sequence 1120

GGGTACAATGGAAGGGGCTGTGTTACTAAGACTGACCAAAGAAGAGATTCCAATATCT
TATGATTTGTATGGTCACTGTAACTGCAATTGTAACATGAACATATTGCCTATAAGCCT
GTGCTCTCCCTTTAAACACAAAATAAAAAACAAGAAAAACAAAACAAAACAAATGAACC
AAAATAGAAAACCTTTTACAGCGTGAGTTGTTTCTACTTAGGATTGGACATCAGTGCATT
GATCTGAGTCTGGAGATCTTAGGCCAACCTTAACAACCTGTGAAAACCTCTCAATGGGGTA
A

Sequence 1121

CGGGCAGGTCTCCGGCGGACGCGTGGGTGCGACTCAAGACTTTTAGCCTCTAAGCCATCTC
TCTCACCCATTGATTTAAATATTTTGCTTTGTGAATTTGAATTGTAATTTTGCTAAT
ATAATTCTATCATTTTCTACCTTCATTTTCTCCTTTCAATCGCTTCTATCTATTCTCCA
ATTTTGCTGG

Sequence 1122

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCTGTTCTATAT
CTTGATTTTTTTTTTCTACTTTACACATCTCATGAGTTTATCCCCAGCACTGGGTATA
GAATTGCCCCATTCTTTCAAGGGCTTGCTGTAAAGTATTCTGGGAAGTGGGCGCACTCT
CTTTAACTCTTCCTCTGTTGATTGTTTTCAGTCTCCTTCTTTCTATAAAGCAAGTTAAAG
GAAACATTCTTTTAAACAATGTTTTTAAACAAGTCTTAGCAATGGTTTTATTATCTGTAGG
ATAATCTAGGAGTAGAGTTGCCAGTTTTAGAGTATGTGCTTTTGAAATTTGTTTGTAT
TCACTTGGGCAGCAGTAAGTCATCTTTTGCTTATTGTGCGNCGCTGTCTCGACCTGAAATC
CTTCTTTTTTATATTCTTGCCCTCTTTT

Sequence 1123

GCNCGAGGTACTACTGGCACTGAGCCAATGTATGCTATCAAGGAAAGCTTTATCTGTAC
TGAGCAAAAGGTGAAGTTCAATTAGGTCAGTTTTATCACTTCTTTTCTACACACAACT
ATGAGGAGAGATCATTTCTTTTCTTTCTTTTATTTAATTTTNNTTTTTTTGGANAAC
ANGGGGNTCNCCACNTCTGTCCGCCCATGGTTTAAAGATTACCCTGGCCNCGGGGCGNG
NCCGGNTACTTAGTAACCTAGTTGGGATTNCCCCAGGGCCTGCAAGGGAAATTTTCGATA
CTCAAAGCTTTATCCGGATACCCGCTTCCGACACTTNGAAGTGGGGGGNGGNCNCCCGG
TAACCC

Sequence 1124

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCTAACCTGGGCG
ACAGAGTGGGACCCTGTCTCAAAAAAATAAATAAATAAAGAAAGAAAGAAATGATCT
CTCCTCATAGTTTGTGTGTAGGAAAAGAAGTGATAAACTGACCTAATTGAACCTCACCT
TTTGCTCAGTGACAGATAAAGCTTTCCTTGATAGCATACATTGGCTCAGTGCCAGTAGTA
CCTGCCCCG

Sequence 1125

Table 1

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCTCTC
TCAGATTAAGGATATGTGTCTGCTAGGTAAAGCGACATCTGGATTCAATTGTGTAGGATGA
AAGAAACCAAAATCTGACTGCTTATTTGTGGATCCGCCAAATCTGGCACGATGCCATCT
CACGTGGGACCGAGATCAAGTCCTGGCCCCG

Sequence 1126

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACTGATC
TCGGTCCACGTGAGATAGGCATCGTGCCAGATTTGGCGGATCCACAAATAAGCAGTCAG
AATTTGGTTTCTTTCATCCTACACAATGAATCCAGATGTCGCTTTACCTAGCAGACACAT
ATCCTTAATCTGAGAAGAGCCCCCGCGTACCT

Sequence 1127

CCGCGGTGGCGGCCGAGGTACTGTAGTTAAATGTGGGTTCTACATGGTTCTGCAGTTTCT
AGCCCTATAAACCTCACATGCCATGTTCTCTCTCCATATATCTTAATCACCTTTAATTTG
GAAATAACAGATCTACCCTGCTTATCTTACATTGTTGCAGTGAGAAGAATGACTACGTTT
TTTGAAACCACCAGCGATGCTGTACCTGCCCGGGCGGC

Sequence 1128

CCGCGGTGGCGGCCGCCCCGGGCAGGTACAAGGCATTTTTGCTAACTGTAACCTCCCACTT
AATCAACAAAAACAAAAACACTCATTTCTGAACATTCAGTGCATCCATGATTAATCTTAA
TTACACCACAAAGGTATTTTCAATGGTGATTTTGCGGGAGTGGGGTAACAGTTTCGAAA
GCAACATTGTGAGAAACATAGTTGATTTTAAAGGTTCTTCTGGTGACTTTGACTTCTGC
TTTTTTAGAAGACCTTACACAGAGTTGTATTTATTTCTCCTGGAATATTTCAAGCAATTC
AGAGTGAAAGGGTATACATTCCAATTTGCGTATGAGATAAAATTTAGTTACATTGAGAAG
CTATTTTCTTTAGTTACAGGGAAAAAATTGTAGGGCTTTTGGAAGCCTCTTTGATTCTA
ATAGGAGGA

Sequence 1129

CTATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGTGCCCACTGGGCC
AGGGTGGTCATCCTGAAATACATGTCCAGGGTCTTGTTTGTCTATGATGTGGGTGAAAGC
TGCCTCAGCCCGCACACAGTAGAGAGCGGGACCACCTCACGAAAGTTTATAGCAAATC
CCAGAGTCTAACCCTGAAAAGCANNAGGAACAAAGACCTTTCCAGAAAGAGGACATGA
ACANACGCTTAAAGAACGACCTGGGCTGCCAGGGTAAGAACCCTCAGGAGGCCGAGAGTT
ACTGTGCACAGTACCT

Sequence 1130

GGCGGCCGAGGTACAAGGGCAGCAGAAGCAACAAAGGCTGTGGCCAGCAACGAAGGCAGA
GTCCCCGGTAGGCGGAGGTCCCCGTGCACAGTGTGGTGCAGCAGTGAACCCAAGATTTTC
CTTACAGGGCAGGGGAACCTATTTCTAATAAGCATTGGGCATTTAGGCCACAANGGGC
AGCCATTACTCAGCACTTGCACTGACCTTGGGAATTTGCTGGGCAAGGAAAATGACGCGG
CCCTCATCATCGATGGCCACACCCTGAAGTACCTGCCCG

Sequence 1131

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACACTTTCTGTG
CTTATGGGTATCTTAGTATAACCTTTTCTGGTTGAGTGAAGTGTGTCATTTCAAAGCCT
GAAGACATTGTGATGAGTGTGCTGCCTCCATAATGGCTACATTCTAGGGGCTTTGCCCTGAA
TCGCATATATTAACCTAAAAACAAACAGTACCTCGGC

Sequence 1132

CGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGAAAACCCTAAAGCAAATGAACA
GCTTAACCGGATATCACAAGGCTACAACAATTAACAGAGGTTTCAAGAAGGTCGTTACG
CAGTAGAGAAATTCAGGGTCAAGTTCAAGCAGTTAAACAGAGTTTGCCACCAACTAAAAA
AGAAGCAGTGTAGCANGTACCCTTGCCCCGGCGGCCGCTCTAGAACTA

Sequence 1133

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTAAACTTAAAGTAT
AATAATAAACTAAAAAAAAGTTATCCATGGCCTAGACAAATCAAAAAAGCATGTGACA

[illegible]

CCGCGGTGGCGGCCGAGGTACCTACATTCTAAAAGTATAATAAAAAATACACAATAAA
AATGTAACCTGTAGGCTATAAGAAAAATAAGAATGTTAAAATAATAACAAATTGTGCCA
AGAAGTTATAAATCATCTGGTAGGCAGTCCACTGGTAAATTAAGAGTTATACATAGAAA
TGACACACTGAAATAAACTTTTATTTCTGCCTCATTTCTCAACTAAAAACACCAAGTGACA
CTTAGCACAAGGTTACATGCACAACCTGTTCAATCACAGTTTATAAAAGCACCTGAACAT
ATTACAAAAGCCAAAGCAATCCTGTAGCAAAATGGACTAAAGCTGGAGACATCACACTACCTG
ACTTCAAAATATAATACAAATCTAGTAGCCAAATCAGTATGGCACTGGCATAAAAAACA
GACACATAGACCAATGGGAACAGATAGAAACTCA

AACACACATACCATAGGGATGAAGATAAGAAAGGAATGATTGTGACTCTGGATCAAAATG
CTCCCAGTTCCTGAAGGTGCATGATTTAACTGTGAATGCCAACTGAGATCCTAACATCCT
ATACAACCAAAGATGAACTAGTCTCTGAACTGGTAACTCATAAAAGACAAATCCCACAGT
ACCTGCCCCG

AGGTACCCCCTCTCGTTCCTTTTCAGCTTTATCCGTGCTACATAGGGTTCACGTCAACCA
TCTGAATGTCCATCACATCATAACATCAGATCATGGTTGAGAGCTGATTACATGCTAATT
GCATAAACTCATTGAATTTTCAACCAACAGACAAGATAGATATGGACTGACATCGCCT
CCATTACACTCATGGTACCTGCCCG

GACTCACTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCGATCCT
AGTGGGACGCGATCCAAAAATATGCCTATTTAAAGATAATGCTTTGGTTATGTTTAATGGG
AAAGTCTATCTGTTGGCTAAAAAGGGGACAGATGTTCTGCCATCACAAATTGGCCAACAG
AATTCTGTTCTCCTGATACTCCAGTAAGAAAAGACACGTTACAGACAGTGAGTTCAGTC
CAGTCACAGAAATATCCAGAGAGGGTGTAAATATTGTTTTGGCTAAAAGTAAATCTTCC
CAGATGGAGACAAAATCACTTTCCAATACCCAGCTTGCTTCCATGGCCAATCTAAGGGCA
GAGAAGAACTAAAGTGGAGAAACCATCTCCTTCTACCACAAATCCACATATGAACCAATCC
AGTAACACTTTAAAAAGAGTAAGGACTTTATTCACAAATCCAATCTTCCAGTTGGGAT
TTAGTACCTGCCCG

CGAGGTA CTCTAACCTGGGCAGCAGAGTGGGACCCTGTCTCAAAAAAAAAATAAATAAATAA
AAGAAAGAAAAGAAATGATCTCTCCTCATAGTTTGTGTGTAGGAAAAGAAGTGATAAAAC
TGACCTAATTGAACCTCACCTTTTGCTCAGTGACAGATAAAGCTTTCCTTGATAGCATAC
ATTGGCTCAGTGCCAGCAGTACCTGCCC

CCCTGAAGGCCGCTTACTTGGAACCGTATCTTCTAAATGCTCTGAAAACTATCCAAAGG
CAATTAATAATCACAAATATCATTGAAACATCTAAGAACTACGTGTAAGCACTTCGGGAT
AGTCAGGTAAGGCGGGCTCTAATTATGAAGCATTTTGATAATTAATAGAATTCTAAGCC
AAAGCTTAAATCCGGATACACATCATAATGGTTAAGCCAAATAACACTTAATCATTTTAC
CTTTTATTATTGATAAGACAAACACTGAAGTAGACAGACAGTAAAGAAAAAGTCCACA
TCTTTTTATTGGGTCCAAATACCTGATTGNAATACTAGCCCTGATTTTCATGTTTC
AGAATTTGTATGTTAATGACCTTAGTAAGATGTGGCTTTGGCCAGCCTCAAAAAGGGTTG
CTCTNCAGCCAGGGCCCCCTTTTTCCAGTTACTGCTCCCCTCTNCTTTAAGTATATTCAA

Table 1

CTGGTGAGTGGAACCTCTTTATCCCGTGTGACAAATGCGTATTGAGGCCCTAACATGCCCC
CAGACCTCAAGATGTGCTGCTCATACTTTGAAGGTAGCCCTGACTTGTITNGGGGGGNG
TGGGGGNGGGCCTTTTCCATCAGTTGTNTGGANGNTGTGGCCAGCAATCCATTCCAAAT
TGNCTGAGTTTTCTTNATTTTACTTTNGGA

Sequence 1140

AATTGNAGCTCCCCGCGNGCGGCGCCGANGTCAATACTAGAGAAGGGAGAGAATATAGTT
AGGACAATAAATTATTGAACAAGTGATTTTTCTGTGATGACTATACCCATTTTCCAAAAA
CTAATTTTCATTTTTGGTGTGTGTGAAGAAAGTTTGGAGGCTTCAGTTTCAATCACTGT
CTCAATACTTAATTTTCCATTATTCACAGAGAAATTGTTTTCTGGAAATTGGCAAGAGG
AAGGAAGTAATAATAAAGATGACTTATGCAGATCCCATGTGACCATCTTACATTCTTAC
TCTTGTGCCACTGTTTCCCTGGCAGTCCGTTACTGGTTTAAAGAGCACTGGGATATAACT
CTAGAAATACGGATTATTTTCTCACCTCTGACACTCATTTCATGGTGGAGCCCTTACCTTA
NTGCCAAGGTTATTGGCATTAACTTTACTATTTAACTTTGCTGAAGTACAGTGTCTTTC
CTCAATGTCAGAAGAAGCTTAGATAGTTAAATAACTTCTAAGGATTATCTATCTGGATTA
TTAGGATTTTTCATCATTCTTGGCGTGATTGTACAAAAGAAAACAGGACATAGCTAGGTG
GCAAGTGCACTCCTCACTCAAAGTTACTTTTTT

Sequence 1141

TCACTATAGGGCGAATTGGGAGCTCCACCGCGGNGGCGGCCGAGGTACCAGTGAGGCATT
TCCTGATTTTTACTCATAATTTTACAAAGATTAAGAGATAAAATTCCAAATGTGAAG
GCTTAAATTGTTCAAATCCTTACTCAAAGAAATAGTGGGAAAGGTGGGTAAGTCAGAGTC
TGCTGCGTGAAGGAAAAAATCAAGTTAATCTCTTCTGAAATTATCATGATTTGTTGGT
TTAGATTCCAGAAACANAAAAGANNAACANAAAAAAGGTCCCT

Sequence 1142

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGAATGAGCTATAGCCTG
CAGTGACCAGAAATCTCCAAGTAAGGGAGTATACACTGAATGTCATGCCCTTCATTAAGT
TAAGGCCTGTAGTTNAAGTTCTTTCAGTATGTGCCATGAACAACAATAAACAATGTCCTT
GGTGTACTCCTTTGAAAGATGGACATTGAAAGTTAAAAATCAGTCACTATATAGGGCCTG
TTGATNGGAAAACCCATTTGNGGTTCTTACAAATTGTAAGCNGGAATGCCTT

Sequence 1143

CCGCGGTGGCGGCCGAGGTACACCGTAGCTTATTTCAAGTGACACAGACCAGGCAACTGA
CAAATACCGACAAGTAAATATTGTTCAATTTTCTAGGTAATCTCTATAATCAAGGGGACT
GATTTTTATTCTGGAATTTTCCCAAATGTTTTCTTTGTAGAAATTATGTTGCTCTCAAT
TGTGTGCATGGTAGTACCTGCCCCG

Sequence 1144

CCGCGGTGGCGGCCGAGGTACTCTAACCTGGGCAACAGAGTGGGACCCTGTCTCAAAAAA
AATAAATAAATAAAGAAAAGAAAAGAAATGATCTCTCCTCATAGTTTGTGTGTAGGAAAA
GAAGTGATAAACTGACCTAATTGAACCTCACCTTTTGTCTCAAGTGACAGATAAAGCTTT
CCTTGATAGCATACATTGGCTCAGTGCCAGTAGTACCTGCCCCG

Sequence 1145

AGCGGCCGCGCGGCGCAGGTACTCTGACGGAGTTACACAACCCCGAGCTATGAAGTAGTCTT
GCCAAANCAATTGAACATGACATTTTCATNAAGCTCTTANAACCGACTATACCAATTTATG
GNATAAACAGAANGACCACGTGAAACAAAANCTCATTAAANGTATGCTCATANNGCAAAAA
TTCACGACTTATAAAAAANACTTTTNACTGGGACCAATAGCATCNGCANGTTTTCTTGNC
ANACAAAAATATTGANANAAANTGTCAATAANGGGGTAATAGNAGGAACANGTANTAANT
GTAGATAACANNAAATTGGAATTATGGAGGGNGNAGTAGTAAGGAATTCAAAGCGCATNG
TCTANCAAACCGGTGGTTGGGGAATGGTTAATTTTTNGGTACCCCCCTTAGATTTTGA
AANANAAAACCAAGGTACNTTAAAAANAATTTTTNGNAATTTCCCTCTNTTTNTTTC
CTCTTANTAGGAAAAACAAACCGGCANAACCTTCCAAGGGTTTTTNAANAANANGGATNA
ATTTTTTTTATTAAGNCCCTTCCNGGTAATTGGAAACNTTTTGGGTNTTTNTTCCAATT

Table 1

NTCCAATTNTTAAAAATTAAAT

Sequence 1146

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCAATTATGATTTT
TAAAAATGCAATGGCATGAATAAATAAATGAGTATACCCATTTGTTGATCTTATCCCTA
TTACTTCAAATTTGTAAGTATCCTTAGTGAAAAAGAGTAATGTTCATTTTGAAATAATC
ATGTCTCAACATGATTGGGGTCTACTCAAGGGGGAGGGTGGGAGGAAGAAGAGGAGCANA
AAGGATAACTATTGGGCACTGGGCTTAACACCTGGGTGGTAAGATAATATGATCAACAAA
CCCTTGTTACACATGTTTACCTATGTAACAAACCTTCACATGTACCTGCCCGGGCGGCCG
CTCTA

Sequence 1147

CCGCGGTGGCGGCCGAGGTACTTGCAAGAAACCTCAGGACTTGAGTAACAGCAACATGGT
AAGTTTTCTAAGTTTTCTTTTGTCTCCCATATACGCTGGGCTGTGCTGGAATCACCAC
AGGCACAGAAAAAATGACAACAAAAACAACAAAACCCCCAAGAATATCCTGTTGTCT
TTGGCCAAAGTTTACAGAAAGGGGAGCCCCAACAGAGACCCAGTAGGAAGCTCTAGCCCCCT
GTTTTGTACCTGCCCG

Sequence 1148

TNGGAGCTCCACCGCGNGGCGGCCGAGGTACTTAGCTTTGTCGTCTTTCTTTCCTCCTC
TTGTTNGAGTTTAGTATTAATAAAAGTTGGACTGAGAAAAACCTTTTTTACAATCTTATG
GGTTATTTTTAGTGTAACGTTTTAGAAGTANAATATACATATAAAACTGCACAGATCA
AATGTGTGCATCTCAAATGGTGTTCATTTTCAAATATGAATACATATGGGCAGCATTT
ATATTTTTAAAAAGTCAGAAGGTGCCTCCTCATGCCCTTCCACTTCTCACTCATTGTCC
CTCAACCCAGGCATAACTACTCTCCTGACCTCCAACATCATAAACTAGTTTCACAAGCTT
TGAACTTTATCCAAATGAGTCATACAGGATAGATGTTACAGAGCCTACTTAGATATTA
TGGATCCTTGCCAGGTAT

Sequence 1149

AGCGGCCGCCCCGGGCAGGTACCTTGCAAGTATTAGACTTAGAATAAACTGTGTTGACTG
ATATAACTGATGCATGGTTGGAATAGTAGGTTCTTGGGTAAATTAATCCTAACATCAATA
GCTCAATCCATCATAGTCCTTGAACAGGCAAAATGTATGCTAATCACAAACAGCCGTACC
T

Sequence 1150

AGCGGCCGCCCCGGGCAGGTACCTTGCAAGTATTAGACTTAGAATAAACTGTGTTGACTG
ATATAACTGATGCATGGTTGGAATAGTAGGTTCTTGGGTAAATTAATCCTAACATCAATA
GCTCAATCCATCATAGTCCTTGAACAGGCAAAATGTATGCTAATCACAAACAGCCGTACC
T

Sequence 1151

AGGTACTATTTTCAGATGGTAGGGATACAAATATATTTTCCCTATATTCAAGGGATTTAC
AATTCAGTAGCAGAAACAGACATGTAAGCAAATAACCGCAAAACAACGTATTAACACAA
TAGCGTTGTATTCAAACATTATGGAAGATAGTAATTAGCAAACTAAGTGATTAATAA
AGTTTCATTAAATCTGGCCAGGCAGGGTGGCTCATACCTGTAACCCTAGCAGGTTGGGAG
GTTGAGGCAGGCAGATCACTTGAGCTCAGGAGTTTCGGACCAGCCTGGGCAACAAGGCGAA
AATTCTCTCTACCAAAAAAATACAAAAAGATTAGCTAGGTATGGCGCATACCTGTAGTC
C

Sequence 1152

CCGGGCAGGTACCTTGTTTCTCAGACAACTCACTGATTTATGGTCTTGAGACCATAAA
CTCATTTTCTTATATGAATGACATTTCCACATCCACAACAATACCACCAAATATATGTA
TCTAGTTCTTACTAACTGCAAATCCTCAAAGTGAAGTGCCTGTCATTTTAATGTTGCGTAG
TTTGCTGATTTATGATTTCCCTTAATGTACCT

Sequence 1153

CCGCGGTGGCGGCCGAGGTACCAACCAGGGCTTTGATTTTCATGCTGTCCCAAAGTTGCA

Table 1

GACATGTTACGACACAGCTGCGTTTGTTCCCTTCATCTTGTTGAGCAACCTTTGGTAAGA
AACTACCATATTTAAGATTGGTATTCTAGATCCAAAAGAAAAATGCATGTGTTTGCTGTG
TGTGCATGGGCACATGTATGTGTATGTCTGTCTGTAAGGATAGAGAATGGCTGAAAATTG
ACAGGTTTTTAAATTCTTAAAAACAGGAACGAAGGAATTCTAACAGCTATGACTCÁAAAC
AAGATTCTTAATAAAGTTNCATGACAANGTAAAACAACCTATTTNAATTGAGAATGTTAAA
TAGCCTTGGTACCTGCCCCCGGCCGGCGNTCTTAGAACTAGTGGGATCCCCCGGGCCT
TGAAGGGAATTTNGATTNTTNAAGCCTTTATCCGAATANCCCGTCCCACCCTTNGAAGG
GGGG

Sequence 1154

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGGAGGCAAAAAAGCAATCAGTATGACTTGAA
CTGCTGGGTTTAATTACTCAATATAACACTTGCCATTTAAAGATCCATATGCCCATCAGC
ATGGCAACAGTCTCTCATAAAGATTCCGGTATCATATGGCACAATTTGTACCT

Sequence 1155

CCGCGGTGGCGGCCGCCCGGGCAGGTACATACGTAACAGGGACTGGACCCTCTCCCTT
AGTTTGTTGTCCATTTCTCCAGTCAACATGTATTTACTGAACACCAGTTATGCATAAGGC
CTTCTGCTGTCTCTCATTAGCAACGGGAGAGTGAACCAGACTAGAAAGGACAGACAGGTA
ACTGTCTATATCTAAGAACTCTTTCTTTTGAAATCAAACTCATCTGCAGAGAATTAGT
CTTGCCCTGTGCCAATTTTCTCCTTATGGCCCCCACTTCCACTAAGGGTCATGAGGTT
GGAGGAGGGCTCGAGGGGGCCACTGAGTGAATCCCTCTGCCTAGAATCAGCAGCACACTTA
TAGGATCCTCAATGCACAAGAACCTGTCAACACANAACAGCTTTCAGAGAATACCTTCCC
T

Sequence 1156

CCGCGGTGGCGGCCCGAGGTACACGAGGGAGGCACGTGAAGTCTATCATTCCATGCTCTCA
AATGTTAACTTTCTGCTTTATATACATAGCAATGCCTCATTACCTAATGTTGGGGAGTA
AGGTATTATATGTGAAAATTTTATTTTAGCTATACCTTTTGTTGAAAAATTTTACAATA
TATGCTTTGGTTATTATTACTAGCATACTGGCAGTAGTTGAGTGAGGCTATGAGATGATC
GAAAAATGTAGTTTGTGCTTCTTTCAGTGGNGGAAAGCCGCTCTCTTGCTGCTGTTAGTA
TCCTTGCTGCCCTCTTTTAAATTATGCAGCTTCTTATCTGTGGAGTAGGAGCTTCCTGAC
ATTGAATGTAAAAACAGCTAAAATGGC

Sequence 1157

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATCATACAACATAATT
TTAAAAGCTTCACTGTTTCAATAAAAAAATAATATAATCATGTTTATCTGACAGACCCA
TTGCTTTATTTCATTATAATCAAATAGAAGAAGAGGAAATTTATGGTGTGTTTGAGAATGCA
TGCAGGTTTTCTTTTGTGTTTTCTTTTGAGGTGTGAATACAGTAATAAAATACTGACT
AATGCTTGAAAGGCTTGAAGAAGGGACTAGCGGTGGAGTCCAAGGACAAGAAGAGATGAG
AAGCTTTTTTTTCTTTTCTTTTCTTTTGGTTTCAGAGGGAAGAAGCTATGTAAATTGGA
CTGGGAATTAATATCCAGCTTCAGTCAGAGAATAAGAAATAGCTTGAAAGTACCTGCCCG

Sequence 1158

CCGCGGTGGCGGCCCGAGGTACTTTTAAACATTTTTCTTGAGAAATCATTGCCTAAAT
CTCATACATATGTGCTTCTCTGCAGAAAAAAAATGAAATAAAATAAAATCTTTATTTT
CAATGAGCTAATGAGGAAAAAGGGGATGATGAAAAACAGGGAGTGGGAGCAATTTTGA
AATGGAAAGAATGCTGAATACCTACATGATGCCTAATTCAGAAGAACATTCTGGTATGTA
GGACATTATTTTCAACTCTATCACTTACGGCAGATTTTTTTTTTATATGCAGATGTATCT
CTACTCTCTAAAGATGTACCT

Sequence 1159

CCGGGCAGGTACTGTGTATCATCGCAGTCTTGCTTTTTTGAGTAATGGATTCTAGATTC
TATGAGGATACCACAACCACTTTTAAAGAGGTTTCTAAGGCCAGGTGCAGTGCTTACGCC

0

Table 1

TGGGAGACCAAGGTGGGAGGATCACTTGAGCTCAGGAGTTTGAGACCAACTGTACCTCG
GCCGCTCTAGAACTAT

Sequence 1160

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTCAAATGGTTA
AAATGGTAAATTTTATGTTACATGTATTTTACCACAATTTTTTATAAGACCAGATTTTA
AAGAGAATCAAACAGAACCTGCAGAAATAAAAGACATAATAATTGAAATTAGTTCGATGG
ATGAATCAAATAGCAGATTAGCTCAGCTAAAGATGACTGTGAATACACAAAATGTAGCAT
GGTGATACAAAAATTGAATATATCAAACAGAAATTATGCAACATGAGGACAGAATAGAAT
GTCCAACATATCTAAATACCATTCAAGAGGGAAAAGAAAAGAAAATGGAGAACCAGGGCA
ATATTTTGGAGGATNTTATTGCTNGNACTTTTCCAAAACTGCTGTAGTTTCTGGAAGC

Sequence 1161

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTTATTTCCCATTTTATAAGCAAAGAGGTAGGAC
TGAAAGGTTAAGAGCTTACTCAGCGAGAGAGAGCTGGTAAATAAAGGAGTGAAGATTCT
AACCCAGATGGAATGTCATGCCGAAGCTATTAGCCACTAGAAGATAATACCTCACTTGCA
CATTCTGCTGCTGCTGCTGCTGCACCTGAGGCCTTCACCTGGGCTCGGTGGTGAATGCCC
TAAGATGGTTCAAAAAGTGCATGTGAAAACTGTTTTAGGCCAAGCTATCAACAAATCTT
CTGGTGATATCAAACCTGGTGGCACAGATAAGAGAAATTTGAAAGTGACTTTCAAAGCA
GGGTGGAAGCCGTAGTACCT

Sequence 1162

AGGTACTCCATAATGGATGTGGGCCAGGGTAAAAGCAGTTGTTAATGTATACAGGAGAAT
GCTCTCAACGTAAGAGGCTACTCCTAGGTTTACCACTAAGACAACCAAGAAGAGAGGAAC
CAGCAACCAATTCAAAGTTGGGACACCGGGTACCTTGCCCGGGCNGGCCGNTCTAGAAC
TANGTTGGATCCCCCGGGGCTGCAGGNANTTCGATATNAAGCTTATCNNTANCCGTCGAC
CTCNAAGGGGGGGGCCGNTACCCAGCTTTTT

Sequence 1163

CCGCGGTGGCGGCCGAGGTACATTTTGAACAATCTACTCTTCAAGTGGATCATTTACAAA
ACAAGAACATAATTCCCTGAATCAGTAAATTTTATTTTCATGAAAGGATGACAAAGAAAT
TCCATTTACACTATCACGATTTACATTTTCTACAATTCATGCAGCTTTCTTCAATTCAC
AATCTACAAACCACAACAATGCACAAATTTGATGTTAGAGGATACTTTAATGTTTAGTTC
TCATCTCAACAGTCACTGTTGCTAGTGTCTCTCATTCTCACTCTTCACTGTTACTTAAAG
AACAAAGAACTAAAGAAGCCAGAAAGAACTAGATCAAGCGATGAGACCAATTTTCAGGGT
AAGGCATAATAACATTAGCTAGTCAAAAAGTGGAGTATTTCTATCATTTAATCCTGCAAG
ACAATAACCTNCTGTTTTCCCTCACTTTCCCTCCAATAACTTGACAGAAGTCTGGGGAAG
GATGGATCCCAAGCAGAAAACCTTCACAAATGTGAAAGAAAATGGAATCCTAGCATAGT
CACATGACTAACTAGAAATCCCAGAACTCTGTCAACAACCTTTGTTTTCAATGCAGAAAT
CATTTTTGTACCTGCCCCGGC

Sequence 1164

ATTGGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTGATCGTTTCTGCAGCTGCAGATT
CTGCTGTTTCGACTCTGGTCTAAAAGGGTCCAGAAGTAATGTGCCTTCAGACTTTAACT
TTGGAAATGGATTTGCTTTGGCTCTCTGCTTATCTTTTTTGCCAAATACTGATGTACCTG
CCCG

Sequence 1165

CGAGGTACGTTGTACAGGACATTTTGAATTCGGTATTCTTGGTCTCCTGGCCCCAATTCT
AAAAAAGTTCACGTTTTGATGAAAAAAGATATGGGCATTATGGATGTTGAGGAGATCA
CAGCTCAAAAGATTGACAGGGGGCCCCAGGGCATATAAGAAACATATGGTACCTGCCCC

Sequence 1166

CGGCCGCCCCGGCAGGTACTGGTCTGNCTGCAGAGGCACCAAGATGATATCTTCCTCCAC
TGTCAAGATTATTTANGAAAAATAATCTCTGGCATANGCCGAGTGCTCATAAAATACTTCA
NGATGAGACAATAAAGCCGCTCCAGGTCTTGGCATGGCCCAACCTCAGGACACTGGCCT

Table 1

ACACATTTGCAGGTAGAAGCAAAGGCCTGCGTCAGGCCTGTGGCCAGCTTTTGCCTGTGC
GGGAGGCTCTAAAATGAAGACAATCTTACTCCAGGTCTCCTTCCACTTTGTTGCCCTCTAG
AATGTCATCTCCCTCCCCTCCTCTNGGAAAGGAGTCACTCCACCCCAACCAT

Sequence 1167

CTCTGCTCTCATTTTCCTGCAGATTCTCTGAAGCCTATCTGTGCTTCTCAGTATTCTCTAG
CGGAGTTGAAAAACGCCCTTAGAGGTGCACAGTTAATTATAGAAGCTGTTAGCTTTCCC
ATCTGTAGTCATGCCCTGGAGCTAAGAGAAGGACTTGAATACAGAAGAGGAGATGCCCCC
TGTACCT

Sequence 1168

CCGCGGTGGCGGCCGCCGGGCAGGTACTACTCAGAGAATTTCAATTGCTACTGCCTGTTT
GTAAACCTAGCAAGTGAGTAAATTGAGGCTTTAATTAACAAAAAACGGTTGTTGTTCT
TTGATATACATTTTGACATAGCTCAAGCTTCAACCCCTGCCAGTTCTATGCTCAGACCC
CATCTTCAAGGATGCTCCTCCTGCCTAACTCCTCTCTCAGAATATTGTTTTTCCTTTCC
CGTTTAATCCCCAGGCTCAGCTCCTGGGACCAATCCTGGTTCAGGCTCCTGTTGCCCTGCC
TCATCCCACAGCCGTCCTAATTTGGTGGTTACCGTCATGCACCTGAAGTGGTAGTGAGC
ATTTATAGTAATAAAATCATAGTCTCACACTGCCATT

Sequence 1169

CCGCGGTGGCGGCCGCCGGGCAGGTACTACTCAGAGAATTTCAATTGCTACTGCCTGTTT
AGCGGGCGGATCATGAGGTCAAGGATCGAGACCATCCTGGCTAACACGGTGAAACACCA
TCTCCACCAAAATACAAAAAAGTCTGGGCGTGGTGGCGGGCGCCTGCAGTCCAGCC
ACTTGGAGGCTCAGGCAGGAGATGGCGTGAACCCGGGAGGCGGAGCCTGCAGTGAGCCG
AGATTGCGCCACTGCACTCTAGCGTGGGTGACAGAGCAAGACTCTGTATTAACAAAAA
AAGTAACCTTGAGTGAGGATGCACCTGCCACTAGCTATGCCCTGTTTTCTGTGACAATC
ACCGCCAAGAATGATGAAAAATCCTAATAATCCAGATAGATAATCCTTAGAAGTTATTTA
AC

Sequence 1170

CCGCGGTGGCGGCCGCCGGGCAGGTACTACTCAGAGAATTTCAATTGCTACTGCCTGTTT
ATGTAATTTGACTTCTGAACACCTAGAACCCTTTGTTTTCTTCTTTTCTTTTCTTTTCTTTT
CCTTTATCCAGTCCAGCTTCTATTTTGTGATACATTTGCAGATTCAGTGAAGAC
CACCCAGCCCATATATAGCTAGCTCTTCTGTGAGATGTGATTTAACCCCTGAAAAAATA
ATGCAAGAAAAAGGAGAGATGACCCGAAGGGGAAAGACTCATAGGATTCCTTTCCCCC
TTGGCATTTGGCCAGGGATTTTCATACATTCTCNACCACTTAAGTTGAAGANGGCTTGAA
GCCTGCTTTGGCTTTTAATAATAACCTGGNAACCCCTTGCCCCGGGGCCGGCCNGGTT
CTTAGAACTTAAGTGGGNATCCCCCGGGGCTTGCAA

Sequence 1171

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAACATCAATAA
GTCGAGAAAAATTATTAAGTAAAGAAAAACAAATAATAGAGAATTTTATTAACGTAT
TTCTAATGTTTCTCTTCATGTTTGGAGAAAAGCTGCCACATAATTAACAAATCTTACC
CTGTAAACTGATTGTCTTCCAATCTCAGGAGGTTTTACATTAAACAGGGAATATAGAAT
AANGAAACAGGCCTATGGCCCGGGCTCCGTGGCTCACGCCTGTAATCCCAACACTTTGGG
ATGCCGAGGCGGACGGATCACCGAGGTGAGGAAATCCAGACCATCCTGGCTAACCGCGGT
AAAAACCTAGTTCTCTTACCTAAAAAATNCANNAANANAAAAGGAATGGAAGGAAA
AGAAAAAAAAGTTACCTGCCCGGGGCCGG

Sequence 1172

CCGGGCAGGTACCCTCCAGGCCCTGTGTATTATTAAGATCTTTAGTAGCGAGTTGCTCT
TTCTCTGGGAAATCGGCTGTTAAAGTCAGAGGGAGCTCTTAATAGTTTGCATGGTATTG
ATTAATGGAACAGTTGGATCAGTACCT

Sequence 1173

CCCTTGTTGAACAGGCGATNTNTNNACCATGCNCACAATGAAATCAATACTCAGAGAAGG

Table 1

CAGATAATTCTCCACGAAGCCAGAAAATAATAAATGAACAACCTGGGTGAAATGTNCCA
CCAGACGGNGTGATATTTAGTAGCCCNATAAGCTGCCANGGGGTGAATGACACTATCTG
AAGATATGAACCAANTTGTCTCCATAGGGAGGATTTATCAACAGGAAACANATGCCTG
GAAGGCATTGGATT

Sequence 1174

CCGCGGTGGCGGCCCGGGCAGGTACGCGGGGATCTCACTCAATCTTACTCCCTTGTA
GAACAGGCGATATCTTCACCATGCGCACAAATGAAATCAATACTCAGAGAAGGCAGATAAT
TCTCCACGAAGCCAGAAAATAATAAATGAACAACCTGGGTGAAATGTCCACCAGACGG
TGTGATATTTAGTAGCCCANAAAGCTGCCAAGGGGTGAATGACACTATCTGAAGATATG
AACCAGTTTGCTCTCCATAGGGAGGATTTTCATCAACAGGAAACAGATGCCTGGAAGGCAT
TGGATTTGCTAAGTGCTATGCCATATGATTCTGCTGTTTGCGTTTGATTAGAATGCTG
AGCTGACTCAAAGTCAAACCTA

Sequence 1175

CTATAGGGCGGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGNCNGGTACTGAACTTATT
TTAAGGTCTCCAATTTATTTGAATATAAATTTGTTGGGAGCTGAGAACATTTTTATTTA
TATGTGATTCTGATTGTTTATCTGTGTTJGGCATATAATAAAAGTTGATTGAGCTGAAG
GACTTAAAAACCTGAANCACACCTTCCATGCTTTTCATTTGCTTTACCTNTGCATGGAAC
ACTTTTAATCTGTCTCTCCTGTGTGAAACTTCTCTGAAACCCTTACCAGCTGNCTGTGCT
GCTACTTGTCTGNJGTACCT

Sequence 1176

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTACAGGGGACCGCCAGGGGCCCT
CGAGAATCGGTATCCTGAGTCCTCTTGAAGAGCAGTAGAGGTTGTTTCATTAAGTGCAAA
CACATTGTTCTTAATTTGAAAACCTGTGGGCAGAAACAGAAGCCCGAGACTAATTTTTCCA
TTGCTAACTCTAGATTCTCGGCCACTGGAGTCTGAAGATACTCTCTTTGAGAATGCATAT
TATTTTGCTCACAGCTAAACATTTAAGTATCATAGCTGATCAGTGGAGTGAGATTAAAA
GGTTTCTTTTTGAATCATCAGCTAGAGATGTGCAAGGGAGACAGCAATGCAGGGTGTGT
TTCAGAAGAGCTTGCTGAGGTGCTCGGCTCTTAGCATTAAAAATGTGATNGTTGGTATA
TCATTC

Sequence 1177

CCGGGCAGGTACAAATATTGAAGGGGAAGAAAATATAATTGTCCTTTCTATCTTTTTCT
CATAATTTAGCTCTTTCTCCACCACGTCATGCAGCTGAATTGAGCCAAGCATTAGTGGTA
GGGATAAAAATAATGCCGGAATCACTCTCCCCCATTTCCAACCTCCACTCTCTTCATGTG
CGCAGCTGCACTTCGTACCT

Sequence 1178

AGGTACAATACTAGAGAAGGGAGAGAATATAGTTAGGACAATAAATTATTGAACAAGTGA
TTTTCTGTGATGACTATACCCATTTTCCAAAACTAATTTTCATTTTTGGTGTGTGTGTG
AAGAAAAGTTTGGAGGCTTCAGTTTCAATCACTGTGCTCAATACTTAATTTTCCATTATTC
ACAGAGAAATTGTTTTCTGGAATTGGCAAGAGGAAGGAAGTAATAATAAAAGATGACT
TATGCAGATCCCATGTGACCATCTTACATTCTTACTCTTGTCCTGTTCCCTGGCAG
TCCGTTACTGGTTTAAAGAGCACTGGGATATAACTCTAGAAATACGGATTATTTTCTCAC
CCTCTGACACTCATTGATGGCGGAGCCTTAACCTTAGTGCCAAGGTTATT

Sequence 1179

TACCCAATTGTCCCAAAAACCTTTATTAACAATCAAAATCAACCTTGACTCCACTCAACT
ATTATTCCAACTTCACCTAAAATAAATTCACAANGTGTATATGGGTCTATTTGGGAATC
TNTGTCCTGTACACTGGCCTGTTATTCCTGAGCTGAGCACTGTAGCATGGACCANACCC
CACACACCTCTCTTTTGGCAGAGGCTCATGGCACTTCTGTAGGTCATTTTTTTCTT
TTTTGAATATACCCTTGGTACCTGCCCGGGCGGCCGCTCTAGAACTAGTTGGATCCCCCG
GGCTGCAGGGAATTCGATATCAAGCTTTATCGATACCCGTCGACCTNGAGGGGG

Sequence 1180

Table 1

GGTACATGGAGGCAAAAAAGCAATCAGTATGACTTGAAGTGC TGGGTTTAATTACTCAAT
ATAACACTTGCCATTTAAAAATCCATATGCCATCAGCATGGCAACAGTCTCTCATAAAG
ATTCCGGTATCATATGGCACAATTTGTACCT

Sequence 1181

AGGTACATCTCTAGCTGATGATTCAAAAAAGAAACCTTTTAATCTCACTCCACTGATCAG
CTATGATACTTAAATGTTTTAGCTGTGAGCAAAATAATATGCATTCTCAAAGAGAGTATC
TTCAGACTCCAGTGGCCGAGAATCTAGAGTTAGCAATGGAAAAATTAGTCTCGGGCTTCT
GTTTCTGCCCACAGTTTTCAAATTAAGAACAAATGTGTTTGCACCTAATGAAACAACCTCT
ACTGCTCTTCAAGAGGACTCAGGATACCGATTCTCGAGGCCCTGGCGGTCCCCTGTAAG
TACCTGCCCCGGGCGGCCGCTCTAGAAGTAGT

Sequence 1182

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTGATCGTTTCTGCA
GCTGCAGATTCTGCTGTTTCGACTCTGGTCTAAAAAGGGTCCAGAAGTAATGTGCCTTCAG
ACTTTAGACTTTGGAAATGGATTGCTTTGGCTCTCTGCTTATCTTTTTTGCCAAATACT
GATGTACCTGCCCC

Sequence 1183

TGAATNAGGGGATAACGCAGGGAAAGAACATGTTGAGCAAAAAGGCNCAGCAAAAAGGCC
AAGGGAAACCCGTTAAAAAAGGGCCCCGCGTTTGCTNGGCCGTTTTTTCNCATTAGNGC
NTCCCGCTCCTACCTTGACCGTAGCCATTACACCAAAAAAATCCGACCGTCTCAAAGT
TCNAGNAAGNGTTGGGCCGANANACNCCGAACCAGGGACCTTATTAAGAAGGAATACCCC
AAGGGCCGT

Sequence 1184

NGGTGGGCGGCCGAGGTACCTNTCCACAAGCCTGAACATGGAGTAGATGCATGGCACGGC
CAGATTAATGCAGGACGCAACGAAAGGCAGTAACAGCACCGCCCCAGGGTACTGTGTGT
CTTCAGGAACCTAAAGTTGTACCTGCCCC

Sequence 1185

ATGCATGGCACGGCCAGATTAATGCAGGACGCAACGAAAGGCAGTAACAGCACCGCCCCA
GGGTACTGTGTGTCTTCAGGAACCTAAAGTTGTACCTGCCCC

Sequence 1186

AGGTACAAAGGGAATAGATAACAGGGACATTGATCTAAAGGGAGGTTAGGGAGGACTTCT
TGGAGGAAGTGATTTTGTGTCTGAGTTATATGGGATGTGTGGGATTCTTAGGTGAAAG
AGGGCAGAGCAATACGGTGAGTCTGATCTGTGCAGCCGGCTTATTAGACAAGACTTG
TTACCCTGCCCGGGCCGGCTCGCTCTTAGTAACNTAGGTGGNATTACCCCCGGGGCCTGC
CAGGGAATTTCCATTATCAAAGNCTTATTCGCATTACCCGTGCGAACCTCNTAGGGGGG
GGGGCCCCCGGGTACCCAGNCCTTNTTTGCTCCCNNTTTAAGATGAAGGGGGTTTAA
TTTGNCGNCCGCCTTTGGGCGTAAATCATTGNGTGCAATAAGACTTGTTTTNCCTGGT
GNTGGAAAANTTNGTTTAAATNCCGCCCTTCAACCAATNTCCACCANCAACNANTAAC
NGNAGGNCCCGGGGNAAGGCCATTAAAAAGNTNGGTAAAAAAGNCCCTGGG

Sequence 1187

NTCGGNCGTTCCNGCTGCGGCGAAGCCGGTATCANCTCAACTCAAAGGCGGGGNAATA
CCGGGTGTATTCCCACCAGGAATTCATGGGGGAATAAACCGNCAGNGGNAAAAAGAAC
AATGGTNTAGTCAAAAAAGGGCCCCANNCCAAATAAGGGGCNCACGGTAAACCCCGGTAA
AAAAAANGGGCCCCGNCGATNTGGCCTGGGGCGGTTTTTTTTNNCCAATAAGGGCCTTC
NCCGGCTCCCCCCCCCTTGTAACGGAAGGCCAATTTCAACCNAAAAANAAATTCGGAAC
CNNCCTTTCAAAGGTTTCAANGAAGGGGTTGGGGNCGNAAAAACCCCCCGNACCAGG
GGGAACCTTAATTTATANAGGAATTAACNCCAAGGGGGCCGTTNTTTCCCCCCCCCT
TGG

Sequence 1188

CGAGCGGCCGCCCGGGCAGGTACCTTGGAATAAGTTGCTAGTTATCTCAGCCTATAAAA

Table 1

TGTAGGGCATATGGACATTAAGATTATAAATTAGCTTTGGTGTAAATCAAATTTTATAATT
TGTAAGCTGGACTATGTTGTGCATCCTTTCATAGTTTAGGATGATTAAGAGTTTGGACCT
TATAAGTAAACTGCCACATTTTGAATCATAGGCCCACTGGGTACCT
Sequence 1189
GGCGGCCGCCCGGGCAGGTACTACTGACACTGAGCCAATGTATGCTATCAAGGAAAGCTT
TATCTGTCACTGAGCAAAAGGTGAAGTTCAATTAGGTCAGTTTTATCACTTCTTTTCCTA
CACACAACTATGAGGAGAGATCATTTCTTTCTTTCTTTTATTTATTTATTTTGA
GACAGGGTCCCACTCTGTGCGCCAGGTTAGAGTACCT
Sequence 1190
NCACACAACAATACAGAGCCCCGNNGTANCCATTATANTNTGTTAAAANGTNCNNGGGGT
GCCCCATAATGGAGTTGTAGCCTAACTCCACAATTTAATTTGCCGTTTGCNCTTNACN
TGCCCCCTTNTCCNTGTCNTGGTAAACCCTGTNNTTTGCCAAGCCTNACAATTANATGN
AAANTNTGGCCAAACNGTNTCGTGGAGTAGGAGNGGCGGGTNTTGGCCGGTAATTTGNNG
CCGCCTTCTTTCCCG
Sequence 1191
AGGCCAGCAAAAGGCCANGAAACCCGTAAAAAGGCCCGCNGTATGCCTGGCCGTTTT
TTCCATAAGGCCTCCCGCCCCCTTGAAGTGAAGNCATTACCAAAAAATCCGGANNG
CCTCAAANTTCAANTANGGGTGGGGCGTAAAAACCCCGGACCAAGGGAACCTTNTTAA
AAGGAATANCCCAAGGGCCGTTTTTCCCCCCCCCTTTGGGAAAAGACCTTCTCCCTTCN
GTTGGCCGGCCTTCNTTACCTTGNTTNTACCCCGAACCCCTTGGCTCCNGCNTTTT
ACCCCGGGAATTAACCCCTNGTCCCCCNCCCTTNTTCTCCCCCCTTT
Sequence 1192
GGGCGGCCGAGGTACCATCCAGGGCTCCAACATGAACCACACAATGGACCTTAGGCCCA
TTCCAGCACACAATAACTCAACAAAGGATGCTTAAACATTAAAGGATCTTACTATCC
TCTTGGCAAAGTACCTGCCCG
Sequence 1193
ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGATGTGGGCTGAG
AGAGCCAACCAATCCAAGTGGGGTTTTGTCAAGGAACGGTATTGGAACTCTGAAGTAGA
TAAATAATTCAAAGGATATTAGCTAAAGTGATCAGGGACCAGGACAGGAAGGTACCTGCC
CGGGCGGCCGCTCTAGAACTA
Sequence 1194
GGCGGCCGCCCGGGCAGGTACANGCATCGCTGGTGGTTTTCAAAAAACGTAGTCATTCTTC
TCACTGCAACAATGTAAGATAAGCAGGGTAGATCTGTTATTTCCAAATTAAGGTGATTA
AGATATATGGAGAGAGAACATGGCATGTGAGGTTTATAGGGCTAGAACTGCAGAACCAT
GTAGAACCACATTTAACTACGTACCT
Sequence 1195
CGCGGTGGGGCGGCCCGGCCGAGGTACCCTCCAGGCCCTGTGTATTATTAAGATCTT
TTAGTAGCGAGTTGCTCTTCTCTGGGAAATCGGCTGTTAAAGTCAGAGGGAGCTCTTAA
TAGTTTGCATNGGTATTTTGATTAAATGGAACAGTTGGGATCAAGTACNCTCGGNCCGC
TCTAGGAACTTAGGTGGGANTCCCCNCGGTGCCTGCAANGGAAATTTCCGAATAATTC
AAAGGCCTTTATTCGGNATTACCCCGGTGCNNAACTCTACCGGAGGGGGGGGGNGGGG
CCNCCCNNGNNTTAACCCCCAAGACCTTTTATTGGGTNTCCCCCTTATANTANAGTT
TGGAAGGGGGGTTTTAAATTTTGGGCNNGCCGGCCNTTTTGGGGCGGTTTTAAATTC
CAATTGGNGGTTCCAATNAAGGCCCTTTGGTATTTTCCCTTNGGTGGGTNGGAAAAATT
ATTGGTTTTAATTTTCCCGNCTTTCTACCNAAATNTCNCNAANCAACCAACCTATTA
NNCNGTAANTCCCCCGGGGGGANGGCCANTTAAAAAGNTNNGTANAAAAAGNCCCTTG
GGGGGGGNTGGCCCTAAANTTGAAGGTTGGGANGNCCCTTAAACCTTCC
Sequence 1196
TCGAGGTACGCGGGGGGATGTGGAGAGGACCATGTGAAGAGAGAAGCTGAGACTGAAAAG

Table 1

GATTTATGTATTAATATTGACAGAAGCCAAGGAACACCATCTGAAGTTCTGACGGCAACA
TCAGAAGCTAAGAGAAAAGGCATGGAAGATTTCTCACCTTAGTAGCATNCAGAGGGAT
GAGGTTGGNTCNCCTGCANNACAANCNCNTGNTNTTATCTTGACCCCTTCTNGACCCCTCN
CNNAAAACCTTGAGNAGNGNGAAAAGAAAATTTTCCTTGNTTTGGCTTTTAAAANAA
CCANCAACCAGGCCTTTGGTNGNGGTTACCCCTTGCCCCCGGGNGNCNGGGCTNCGTCN
TTCTTTAGTAAAACNCTAAGGTTGGNGNNTATCCCNCCCCCNNGGNCNTTGGCAANNNGG
AAANTNTTCNNAATTAATTTNAAAAAGTCCTTTTATTTTCNGAATTACCNCCGNTNCAGAN
CNCNTTCTGATAGGGNGGGGGGGGGGCC

Sequence 1197

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCAGAAGATATACACCATCCT
GTTGCCATATATCTAAGTTTTTAACAATTTTTCTTAATATCTATCTCCTCCCCAGATT
TGAAACAATAGATGCACAAATATGAAACGATTAAACTAAGTTGATTAGCTGAAGCCAATA
ATAACTACCCAAAACAAAAGCTGAACACTTAAACCTACTCAGCCATAAACAGAAGAGCTTG
AAAGCTGCAGGCTTTGTCCCTAAAGCTAGGGCTGCTGTTGTGGTGTAAACATCGAGAAG
CTTGAGATAAAGGTGTCTGTCCCATAGAAGGCTCAGTTAGGTAGGCAGTATCATTTNGCTC
ATTTGCTCCAGCCAGTNGGAGGGTAAGATTTTCCATTCTTAATTTTCTCATCCACTAGGA
TCATCAGGTAGAGAATGGAGAGATTGGGGAACC

Sequence 1198

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAACCTTG
TGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCAT
ACGGCAACCTCCTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAATGGTAAGCCCT
TGGTTAAATTTATTGGCTTCATTTATGTATCTCACAACACTTCTTTTCTGTTTATGTTCT
AGGAATAGAACTTACTTTTGAAATACAGTACCTGCCCG

Sequence 1199

AGGTACAGGCAAAACACATTTCTTGTTTCACACTTCCTTATAACACCCAGCAAAATACCA
GGGAAAAATAGCAAATATGAATCAATCTTTAGTAAGTTTTATTCTAAACAAAAGGAGTGA
CTGATGAATCACATGGNAACAGGAGGGGGATTGAATTGTTTTGTTTTTAAATGGNGA
TNCAAAATCCAAGGGAGGAGAAGATGAAATTATTACCTAAAACCCAGGCTTCTCCNCAAT
TATTGNATCCCTTAAACCTTTAGNCAACCCATTTTTTGCCCCGCCCTTGTGGAAACAT
GGCTTCTTTTTNCAAGGAACCTCCGTTCCAAATTGGGGTNGTTGGAAAAGNTGGCCTTTT
TCCTTGGAATGGTTGGTTTTCCCTTTAATTCAAAACCCCCACCAATTCCTTTTGGNCT
TAAGNCCAACCTTCCCTTAATTAACCTTTTCCCTTCCCTTTTCAAAAACCTTCTTA
AAATTTTGGGGGGTGGGTTNCAACNCNTTTCCCTTGGTTAAGGGGGAATTGGCCTTTA
AACCCCCCCCCAAAAAATTTTCNCCC

Sequence 1200

AGGTACGTATCTAAACCCCGTGAGCTAGGCACTCCCCACCCATCTGCATACACTTTGTCA
TCTTTGCAACTACAGCGTTTAAACAGGGCTGGGAGATTTCAACTAAAACAGACAGAATGA
ACTTTCTTTTAGGGATCTTAGAACATTTTGCATGGATAGGTGGAGAATTTGAATAAAATG
ACCTATAGGGATAACTGTCTTTCTAAAGGTCTAAAAACAACTGTCCCCAGTTCATTAAC
CAACATATTTATTGCCACTAGAAATCAATTTTCAAAGAGTGGTAAAAATGACAGGGACTG
TAGCCACTGCCCAAAACCCGACTGACAGGGTCTCAGCACTAAATCAAGTAAAAATTAATA
AGTGTCACGTGCCAGGTGTGACAGCTAGGATA

Sequence 1201

CCGCGGTGGCGGCCGGTGCCCACTGGGCCAGGGTAGTCATCCTGAAATACATGTCCAGG
GTCTTGTTTGTCTATGATGTGGGTGAAAGCTGCCTCAGCCCGCACCACAGTAGAGAGCGG
GACCACCTCACGAAAGTTTATAGCAAACCTCCAGAGTCTAACCTGAAAGCAGCCAGGAAC
AAAGACCTTTCCAGAAAGAAGGACATGAACAAACGCTTAAAGAACGACCTGGGCTGCCAG
GGTAAGAACCCTCAGGAGGCCGAGAGTTACTGTGCACAGTACCT

Sequence 1202

Table 1

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGACGTATG
TTGAAAGAGGTAAATAAATGTATGAAAATATAAAGCATTGAGAGACAATTGTCCATAAA
AAAGAACCAAGTGGGTATCCTGGAAATCAAATACAATGTCTGAAGTTGAGAATTAGAT
TTGTTACAAACCAGATGGCACACATCAGAAATCTGAATGAGAAAACCTCAGAAGCAAGTTA
ACAGAAAATATCCAACTGAATCACAGAAGAAGACTAAAAGAGAGCATGGGAGTTATGTG
AGACACAGACAAAAGTTCCAACATCGATGAAATTGGAATCCTGGAAGAAGAGAGAGGGGA
AGGGCAAGAGAAATTTAAAGAAAAAGTAAATTGAGAATTTTCCAAATCTGATGAGAAA
CTTTAAATCACTGAATCAAAAAGTTCACTAAGCCCAACAGGGTGGACACAAGTGCACACC
CAAACNTTCCACACAAAACCCATCCAAGTACCTCGGGCCGCTCTAGAACCN

Sequence 1203

TTTTTTTTTTTTNTNTTTTGAATGACAGCCTANTCTTTATTGCAGGTTTTTTATTTTA
ATTTAATACCAGAGAGCCCTAAGCCAGGATTTATTTTCCCATATGAAAATATTTNGGTC
TGACTCTGAAGTCTCANANCGGTNGCTGAATTTCTCAAAGTGAAGAGTGAAAGCTTTGT
AAGTTTCTTCAAGGCATTTTCATGTGTCATTGTTTTNTCCTCCCAATAGANANTGAANGTA
ATGGTGATGTCCNCCAGCACATCACCTGGATTAAATTTNTGCTGNGCANGAAATGCATCN
GCACCTTTACCGTNACCTAATNAATTTAACNGCCAGGCCCNTGGGNAANCAATNCCNGC
AAGGTTCCNCAATTTTTCTTNACCAAGAANGTTNTTACTTTTCAGATCTCGATGGGGCAA
ATTGNTGGTTTGCCTTGAAGTNCCCTNGCCGNTTCTANAACANGNGGGATNCCCCCGGC
TGCAAAGGAANTCNAATTTCTAANCNTTANTNNANTNNCCGGCAAACNTGAGGGGGGGG
C

Sequence 1204

CCGCGGTGGCGGCCCGCCCGGGCAGGTACAGACTTTATTCTCTATTTAGGGGCTTGT
TATTAAGCAGACAGAACTCTGCTTGATTATTCATGAAGTCGCCAACCATTAAATCATGCA
CATTTGTTTAAACAGGTCAAATGAAGAGAGGAAATTTGTGTGCAGTCACGGCAAATACTGC
CTCATTTTACCCACTGTGATACTAAAGGTACCT

Sequence 1205

CGCCCGGGCAGGTACCTCTAGGCAATTCATTACAGTAGCATTAAAGACACCAAGGCCAA
ATGCTTTGGGGTCACTCTTCTAAAACACCGTGTCTAGACAAGAGTCATCAAGCAATGATT
GCTTGACTGATTTTTTAAAATTATAAGTCACACAAACACACAGTCATCTAATAAAAAA
ACTGATTTTCTTAAGATTCTCAGAGTGGTAACACTCACAACCTGTCATGTCAGCAAGTGA
ACTTTCTTCTAAGTAAACATCAGAATTTCAATCAGCCTTTGAACCACTGCAATATTTCA
CAGTCTCAAAATCACCTACCTTAAACCAAGCGCGTACCT

Sequence 1206

ATTGGACTCCACCGCGGTGGCTGCCNACGTACCATGTCTGCACCAANAGTGGCAATAAGG
AGGAGGTGGCATGTGGTGGACNGANGGANAGCCANATTCTGTTTCAGGTTACANCATGCA
AANAAGGGCGATGAGAATNTTGCATTATACATA

Sequence 1207

CCGCGGTGGCGGCCCGCCCGGGCAAGGTACCACTATTTGAGTTCTGCAGTTGGCCAGGGTT
GTGGGAGGGGCTCAAAGTTAAGTGGAGACACTGAGATGGACAAGACCAGATGCTATGCA
CAATGGAAATGCATGGTTGAAGTTTCTTCTGCTGTGTGGGGCCTTAGGGCCACAAG
GGCAGCCATTACTCAGCACTGCACTGACCTTGGGAATTTGCTGGGCAAGGAAATGACGT
GGCCCTCATCGATGGCCACACCCTGAAGTACCT

Sequence 1208

CCGCGGTGGCGGCCCGCCCGGGCAGGTACAACGATCTCTTTTGTGGTCTTCTATGTCAACT
CTCAAACTAATCTCTACAACCTTTCCACCCCCACGCACCGTGCCACAAATCATCTGTT
ACCTAACACATAAGTGACAACACAATTTCTGTTCTGCAATTTCTGCTGAAGATTGTTCC
AATTTACTTCTCTGTTGACATATAAAGTAGCCTTTAAAGCTTTTAAAGGCTTTTAAAGCTT
TAAAGTAGCTTCAACATGATTTTGATTCTGCTTTTATTCTCATTAAATGAAATATTTT
TGGGATTGAACAATGAGAGNAAAATAAGAGTAGGTGGTGAATAATTAAGTA

[illegible]

Table 1

GCTTCTATTTTCGACCGCGATGATGTGGCTCTGGAAGGCGTGAGCCACTTCTTCCGCGAAT
TGGCCGAGGAGAAGCGCGAGGGCTACTGAGCGTCTCCTGAAGATGCAAAACCAG

Sequence 1217

AGGTACCCAAGTGATGTCATCTCCCCATCCTCTTGAGAGTGCTGAGGAGGCCTCTTTTC
CTTTTTTATTGCAATGGCAAGGTTGGAAGAACTGTGACNAGTAAGAGGCAGAGACCCAN
AGCTGAGTGTAGCATCATGTCTTCTAGAGACTCTCNCNNAANAAANCTGACTTNGGCCAG
TGCTNTGGTTGAAATGTATTCTGGATCCCCGAGTACCTGCCCGGGCGGNCNTCTAGA
ACTAGTGGA

Sequence 1218

GCAATTCCTNCACTGGGAGTAAACCACAGACTACGAGGGAGTTTGACAGCTATTAACCA
GGGCTCCACAGTTAGGAGGTAGCTTTGCAGTTTGGGGAGGGCTGTTTTCCATGATTGACT
GTATTATGGTTCAAGTCANANGAAAGGAAGATCCCTGGAAGTCCATCACAGTGGTGCCCT
TAACGGGAGCCATACTGGCAGCAAGAAATGGACAGTGGCCATGGTTGGGTNAGCCGCAA
TGGGTGGGCATTCTCCTAGCTTTAATTGAAGGAGCTGGTATNTTGTGACAAGATTTGCC
TCTGCACAGTTTCCCAATGGTCTCAGTTTGCAGAAGACCCCTCCAGTTTGCCTTCAAC
TCAGTTACCTTCCTNACCTT

Sequence 1219

CCGCGGTGGCGGCCGAGGTACAGGTCCGAAAGTATGAAGAACACAGAAGGCAGGCCAGGG
GCACTGTGAGATGGTAAAAGAGATCTGAAGGGATCCAGAATTCAAGCCAGGAAGAAGCAG
CAATCTGTCTTCTGGATTAAGTGAAGATCAACCTACTTTCACTTACTAAGAAAGGGG
ATCATGGACATTGAANCATATCTTGAAAGAATTGGCTATAAGAAGTCTAGGAACAAATTG
GACTTGAAACATTAAGTACATTCTTCAACACCAGATCNCAGCTGTTCCCTTTG

Sequence 1220

ATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTGGACGGCGTGAGGTGCAT
AATGCCAAGACAAAGCCGCGGGAGGAGCAGTACTCAGNTAAATATTTCTTCATAAATAG
TTACAAAACCTGCCAAAACACAAAGGGGAAAGTATTTTCATTCAAAAAATGACATTTG
AATGTNACNCAACACAAGAAACAATGCTTAGAGACATGTTATTGTTCCAGAAGAAAATG
GTCAGTAACTACTTAGCTGAAGACAAAAG

Sequence 1221

ACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGTCGCACTCATTTACCCGGAGA
CAGGGAGAGGGCTCTTCTGCGTGTGGTGGTTGTGCAGACCCCTCATGCATCACGGAGCATGA
GAAGACGTTCCTCTGCTGCCACCTGCTCTTGTCCACGGTGAGCTTGCTGTANAGGAAGAA
GGAGCCGTCGGAGTCCANCACGGGGAGGCGTGGTCTTGTAGTTGTTCTCCGGCTTGCCCA
CTGCTCTCCCACTCCACGGCGATGTGCGTGGGATAGAAGCCTTTGACCCCCGCGTACCTN
GGCCG

Sequence 1222

CTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGATACCTCACCGTGGCTGCTGT
CTTCCGTGGTCCGATGTCCATGAAGGAGGTGATGAGCAGATGCTTAACGTGCAGAACAA
GAACAGCAGCTACTTTGTGGGATGGATCCCCAACAATGTCAAGACAGCCGTCTGTGACAT
CCCACCTCGTGGCCTNAAGATGGCAGTCACCTTNATTGGCAACAGNACAGCCATCCAGGA
GCTCTTCAAGCGNAT

Sequence 1223

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTGTTCAGTTAGTTTATT
GAAATGGAATGAATTTGAGGTTTCAACAGTTGTCTAGCAGTTTCCACATAAAAAGACAA
CACANGAAAGAAAAGTGGTTTCTAGCAATCAACAGATGAGTTCTGGCCATAGTCTGTAGC
CCTNTGAGCCAAACGCCTTGGGTAAAGTTAATTACTTTCATATTACCAAATGCTGTC
GTACCTGCCCCG

Sequence 1224

CCGCGGTGGCGGCCGGAAGGAGGATGGTATCACTCAGGCTCTCAGGGTGACACTGAAGCA

Table 1

AGACACTCATGGGGTAGGACATGACCCTGCCAAGGAGTTCACAAACCACTGGTGGAAATGA
GCTCTTCAACAAGACTGCGGCCAACTTGGTAGTGGAAGTGGGCAGGATGGAGTACCTGC
CCG

Sequence 1225

AGGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCT
GTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGC
CTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACCTGCCCG

Sequence 1226

CCGCGGTGGCGGCCGTGGTACTCCATCCTGCCAGTTTCCACTACCAAGTTGGCCGCAGT
CTTGTGAAGAGCTCATTCCACCACTGGTTTGTGAACTCCTTGGCAGGGTCATGTCCTAC
CCCATGAGTGTCTTGCTTCAGTGTACCCTGAGAGCCTGAGTGATACCATTCTCCTTC

Sequence 1227

AGGTACTTTTATTAATAAATAGTCACGCAGACAGTGCCTTGGTGGCTCTGCCCCGCATCC
CAACTCTGGGGTGGGGGAAAGGGGTCAACGTTTTTCGAGCCCCAAACCGGGCCATCACTT
GCCACCGAGTCAATATGATGCGGTTCTGCTCGGCGCGCTCCCGCGTACCTGCCCG

Sequence 1228

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAAGTTCCTATGGCTTATGGA
GAGTTATTTATTAATTAAGTTTATGGTAGGGCTAGTATGAATACCTTTTAACAATTGCG
TGCTATTACAACAATGAAGATTCAAATGACTCCGCTTTGAAGGATGTTTTCTCTATATGG
TAAATATATATGAAGAAGTCTTGATTACNGTGAAGATCACTTGACTCAGAATACTTCA
ATGTATTTTGTTCACATTACCACTAAGCATATTATCAGTAACTATTAAGTACTGCACA
TTATGTAA

Sequence 1229

GGAGCTCCCCGCGGTGGCGGCCGAGGTACTCCCTTGTGGATAAACGCTTCTAGTTCTTGG
CGTGTTTGGGTTGCTTTTCTCCTAAAACTGAATGGAAGTAGAAGTTTCTAGGAACCTT
TTCAAGCTGCAGTAATGATTTACTGAAGCAGAAAGAACATGGTTATTTTGAAGTCTCACNA
NAATAAANANANATAAAAGTNCANATTTNCACTNTTTGAATCAGGTTTCAAGAAAAAG
CAAACATGCACACCTAAACCTTAAAGACCGTTTCATCACTATGCATACGTTTATCATTT
GACATCCATCAACTGTATACCTGGTTTCAAAGTAAATTTAACTTGATCTCAGCATAG
CTCATGTNCACATTTTCATGCANAGGGTCCAGGAACTCAAATCACACTTTGGTAAGTCAC
CATGTTCACTCATTTT.

Sequence 1230

CATTAGGCGAATTGGACTCCACCGCGGTGGCGGCCGCCCGGCCAGGTACTCCATCTAGTC
TGGGTGACGGAGCGAGGGTCCATCTAAAAAAGACATNGAAGNNCNGNAGAAGT
GAGTTAGAAACCTTCTTCNATTCCGTGTTTGGACCTTGGGAAGGCTGTTAAGCCTCCTGG
TGCTAGTTTTTCTCATCTGTAAACAGGCNTAATNAACACCATTTGCATGTTGGTAC
CTN

Sequence 1231

AGGTGCGGTATCCTTGCACCTTGCTTCTCATACTTCAAGCTACTGCTTGGGTGGGTCCCG
TTGTAACTANATGAACACTCATCTGACTATGGATATCATCACTCCTAGATACTCCTGCT
CATATGCCACTTACCAGAGNNTCTGTNTGGACATCTTTTAACCAAGCTAGTAGTAACT
GCCCC

Sequence 1232

CCGGGCAGGTACCANGCTGTAACCAATACGATTCTGGGGCAGGTTGTGGGCGAGTAGAAG
AACCTCCTTCCCCTCTGCGACATTGAACGGCGTGGATTCAATAGTGAGCTTGGCAGTAGT
GGGTGGGTTCCAGAAGGTTAGAAAGTGAAGGCTGTGAGCAGGACCTCCTTCCAGGGGACATG
CAATCTGCAGGGAGGGGCTGAGGGGGGTCCCATGGTCTCTGCTGTCTTCTGTCCACCT
CTTTGTAGAGGAGCTTGAGCTCCAAGGAATGCTCTGGTCAGGGCTGCTGTGACTGTTGGC
CTGCTGTCTTCTTCTTCTTGTCCCCGCGTACCTTCGGCCCCGNITCTTAAAACTNGT

Table 1

GGAAAAGG

Sequence 1242

CACTACTATAGGGCGAAAATTNGAACCTCNC CGCGNGGCGGCCGAGGTNCGGGGGCCAGT
TATTATACTGCTTT
TTTACTAGTGGCCCTGG
TGGATGCACCATAGATGAGGAGCCTGGGAGCCTGGCCAGGTTTCTGCTGGTACCTGCCCG

0

Sequence 1243

CCGGGCAGGTACGCGGGGGAGGAAGTCTCAGTTAGGACCCAGACGGAACCATGGAAGCC
CCAGCGCAGCTTCTCTCCTCCTGCTACTCTGGCTCCCAGATACCACTGGAGAAATAGTG
ATGACG

Sequence 1244

AGGTACCTGCAGGCCCTCCTACACCTACCTCTCTCTGGGCTTCTATTTGACCGCGATGAT
GTGGCTCTGGAAGGCGTGAGCCAATTCTTCCGCGAACTGGCCGAGGAGAAGCGCGAGGGC
TACGAGCGTCTCCTGAAGATGCAAAACCAG

Sequence 1245

CCGCGGTGGCCGGCCGCCCGGGCAGGTACAGCTATTCAACATGTTTAAACAGATGTTTGC
TGACAGCACTGACTTCTCCAAGAGCCTAAGAGAGGAGAGCAGCCAATTAACCTCCACTGT
CTTCTAAAATTTAATCCTAGATTGGTTTCAGATGGGTTAAGACAGTCATTCAACCCACA
AGTATTAAAGGAAGGCACCTGGGAGCTGACTCAGTTCCTAGATTAAACCTATTCTGTGA
CTGCCCCACCCCTACCTTCAAAGTACCT

Sequence 1246

CCGCGGTGGCGGCCGCCCGGGCAGGTACAAGAGTTACAGCCCTTATGACATGTTGGAAG
CATCAGGAAAGAGGTTAAAGGAGACCTGGAAAATGCTTTCCTGAACCTGGTTCAGTGCAT
TCAGAACAAAGCCCCTGTATTTTGCTGATCGGCTGTATGACTCCATGAAGGGCAAGGGGAC
NCGAGTAAAGGTCTGATCAGAATCATGGTCTCCCGCAGTGAAGTGGACATGTTGAAAAT
TAGGCTAGAATTC AAGAGAAAGTACCT

Sequence 1247

TCGCACTCATTTACCCGGAGACAGGGAGAGGCTCTTCTGCGTGTAGTGGTTGTGCAGACC
CTCATGCATCACGGAGCATGAGAAGACGTTCCCCTGCTGCCACCTGCTCTTGTCCACGGT
GAGCTTGCTATAGAGGAAGAAGGAGCCGTCGGAGTCCAGCACGGGAGGCGTGGTCTTGTA
GTTGTCTCTCCGGCTGCCCATTTGCTCTCCCACTCCACGGCGATCCCGCGTACCT

Sequence 1248

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGGGAATAGA
TAACAGGGACATTGATCTAAAGGGAGGTTAGGGAGGACTTCTTGGAGGAAGTGGTATTTG
TGTCTGAGTTATATGGGATGTGTGGGATTTCTTAGGTGAAAGAGGGCAGAGCAATACGGT
GGTAGGCTAGATCTGTGCAGCCGGCTTATAGACAAGACTGTACCTGCCCG

Sequence 1249

CCGGGCAGGTACGCGGGGCCGCAGTAGTTGGAGTCTAAGGACTCGTGACAATCTTCGGGT
GCCCTTCGAGAGAAAAGGGGAGGATGCCACTGGAGTCATCCTCTTCAATGCCACTATCCT
TCCCATCTCTCTTACCCTCAGTACCT

Sequence 1250

CATACTTAGGCGCAATTGGAGCTCACCGCGGTGGCGGCCGCCACCATGTCCGCCTCGGCT
GTCTTCATTCTGGACGTTAAGGGCAAGCCATTGATCAGCCGCAACTACAAGGGCGATGTG
GCCATGAGCAAGATTGAGCACTTCATGCCTTTGCTGGTACCT

Sequence 1251

ATCACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGACATCATTT
TCAAGAAGTTTTGCCATAAAAGTGAAAAATGGTAATAGCTGAAAAAATTTAGCGTTGACA
GAAGGCTTTTTTTAAAGACAGGAAAAATTATGGCGCAGAGGGAAATGCTGATGATAACAAG

Table 1

ATGGAGAGAGAGAAATTACTGGAGTAATGACTCTGAGCAGATGTGGATGGCATTAAATAA
Sequence 1252
GCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACTACTGGCACTGAGCCAATGTATG
CTATCAAGGAAAGCTTTATCTGTCACTGAGCAAAAGGTGAAGTTCAATTAGGTCAGTTTT
ATCACTTCTTTTCTACACACAACTATGAGGAGAGATCATTTCTTTCTTTCTTTATT
TATTTATTTTTTTGAGACAGGGTCCCACTCTGTGCGCCAGGTTAGAGTACCTGCCCG

Sequence 1253
CCGGGCAGGTACAGTAGTCAGCTACTTGGATATCAAGACTAAGTGCTGATATGAAGACTT
GCCTTTGTGTTTTGTATGAAACACGCAAGCATAAAGCAGGACTCAAGCACAAGGCTGAC
TGTTCTACTTTGAATAACAGCTTCCTTGCACTCTCCTCCACATGGGTGGTACCTCGGCCG
CTCTAGAACTAGT

Sequence 1254
CCGCGGTGGCGGCCCGCCGGGCAGGTACAGAACTTTTGGAAACACCGTCCCTTCAAATGC
TACCTTACTTAAATATGTAGACATTAGTCCATCCAACCTCTGCTACCAGGCAGTAACCT
TTCATAGATCTTCCAAAGAAAATGTTCTTGATAAAACCAGAAGAATCTTCTCAGAGAGAC
CCAGGGGAGTGATCTGACCTCACTGCTATCTTGACTTAAGTTTTAGCTGCAGCCATGGC
GACTCAAGTACCTCGGC

Sequence 1255
NCCGGGCAGGTACTAACCACAATAGAATTACCTATCCNTAACTCGTTAGCCCAACACA
GGCGTGCTTTAAGGAAAGATTAAGGAAAGTAAAGGAAGTCTGGCAAACACGAACCCCGCC
TGTTTACCAAAAACATCACCTCTAGCATAACAAAGTATTAGAGGCATTGCCTGCCAGTGA
CTNAAGTNAAANGGCCCCAC

Sequence 1256
CCGCGGTGGCGGCCCGCCGGGCAGGTACCTGAATTTACCAGTATTTTCTCTTACGGCTTT
TGGATTTGACTCATAGTTGAAAAGGTCTACCATGTTCAAGGTCATTAAGAAAGTATCCTG
TTTTTCTCCTAGATCTTGGGTAGCTTTTGGTGTGACCTTTACATTTTTTATTCATTTGA
AATTTGGCCTGGTGTAAAGACAGGCTTTCCCTAGAATGCTGCCAGGTAGCTCAGTATCA
AATATTGAATATCCCTATTTTCACTTCCACTCTGATTTATAATGCAATTTTTATCCACA
TATATTTGGATCTATTTCTGAATTTTTTTTTAACATACATTTTTTACACGTTCCAA
CTCTTAGAAATGTTCCATGCTGTTTCTGTTTTTANGCTCCTTTTANGTACCT

Sequence 1257
CCGGGCAGGTACTCTTGTTTAACCATCAGAGGTGATTCCATCACCTTCACAGCCCCAGCC
TCTGCTCCAGTCCCTCCCCAGCGAAAAGGGCCCGCCCATGCCATCCTGCTGCTGGTGATT
GCTTTGTGGTCATGGACTCAGTGGACATCATTATTTTATTAACCGTGTGGTAGGTTTTTA
ACTCAGTTATCCTGGATATCCAAAGGTTTGTGGTCCATCTTAGGCTTCCGTTTGTCTT
TGGTACCT

Sequence 1258
CGNGGTGGCGGCCGAGGTACAAGATGCACTTGGTCACCCGGTTGTAGGCTCCAGGCTCCA
TGAACCAACAGAAGCTTCTCTAAGTAGGAAAAGTGTGCGATGSCGTAATCCGAGTTGTTG
GTGGCCTGCATGCCTTCATTCCCACTGATCCACACCCACGTGGGCTGTCTGGATCATC
CCGACATCGTTGGCGCCGTCTCCGATGGCGAGGGTGATGGCCTTACCCGCTTCTTCACC
ACATCCACTATCTCAGACTTCTGCAGAGGAGACACTCTGCAGCATATGACCGCTTTCAC
GAGAGTGCCAAATCCAGGAACTCCTCCGACTTCGAAGGAGAGCGCGACCTGCCCGGGC
GG

Sequence 1259
AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTCGGTTGCAAGCACAAGCA
AATGTGCCAGGGTGGTTGATGCAGCTGTGGTCACAGGTCTATCCAAAGAGCACTCATCC
ACATCTTGGCAAGACTTCTCATCTGTTAATAATTTAAATCCTTTCTT

Sequence 1260

[illegible]

GAAACCTATTGGGGACCAACTGAATTCACCGTAATACTTAGATTCCGTTCTTTAAATGTT
GCTATATATTTAAATGCACACTCATATAAGCATGTCCCATTTGNAACTCTCTGAAATCGT
CTAGAAATTTTGACTCCATTCTGTGAAAATTTTTNTACATCCGGGAACAGTCCACTTATT
ACTTTCTGTGGCCTA

GGGGCAGGTACATGCGAATCCTATTGGGAACCTACTGAATTCACCATGATACTTAGATTCCGTTCCACAAAAATTGTGCTCTATAATTGAAAAGCAAACCTCATACAAGCATGTCCCATTGGGAACCTCACTGAATTCGCGCTAGAAATTTTGTATCCATTGTTCCATTCTGTGAAAAATTTTGTATATCCCGAACAGTCCCACTTATTACTACTGCGGCCTACTGGGAACCTAACCGAATTCACCATGTTACTNAGATTTGCGGCTCACCCAAGTTTGGATAAATCTTTGA

CCGGGCAGGTACGCGGGGACCCGGCGCTCCATTAATAGCCGNAGACGGAACCTCGCCTT
TCTCTCGGCCTTAGCGCCATTTTTTTGGAAACCTCTTGCGCCATGAGNAGCCAAGTGGTA
GGAAGAAAGCCGAAATGTTGCAANGCNTGAAANCCGCCAAANAGNAANGNAAAGAATTGA
AGGGCAGNTAGTGTTCCAAAGNTAAAAACNCGCCTAGNCTTTGTTTTGCCACCCCGCTGG
GNAGNGCCCANCAAGGNAGTCCANNAAAACANTGTGNAAAATTGNACACAAGAAGTCTTGG
GGGGGANTGCTTGGNTAANCCNNTTCGNGGCNCGGCCTTCTTAGTAAACCTTAAGNTNGG
GAATCCNCCCACCCGGGGCTTTGGCTANNGGAAANTTTCGGATTAATTCCANAGGCCTT
TTAATTCCGNATTAACCCCGTTCGTAANCACTTTGTAGGGGGGGGGGGGGCCCCCNG
GGTTATCCCCCAAGACCTTTTTTTGGGTG

CCGGGCAGGTACACTTTTGGTCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCA
CCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTTGAAATCTGGAACCTGCTCTCT
GTTTGTGTGCCCTGCTTGAAATTAACCTTCTAATCCCCAGAAAGNAGGGCNCCAATAA
GATATCNCTTCGGGGGCTCGNCNTNCTTAAGAAACCTTAANTTGGGGTAANTTCTCCCC
CGGGGGGCGNTTGGCCAAGNGGANANTTATCCGNAATTAANTTNATAAGGNCCNTNTAATT
NCTGGAATTAANCCCCGGNTGCCCTNANNCTCCTNCNGTNAAGNAGGGGGGGGGGGGACC
CCCCCGGGGGGATNAACCCNCCCNAGGCCCTTTNTTTGGTATTTACCCCCCTTNTTAT
NANGCATAGGNAAGGGGGGGGGTTT

CCGCGGTGGCGGCCGCCCGGGCAGGTACAACCTTTAACTGTATTGTATTCATGTTGCTAA
ACAATATTGGCCTTCTCGATGATTTTATTCATGTTGCTCCAAAGTTAAACCCTGTAGAA
CTAAGTAGGTGAAGAGATATTTTGATAAGTGCCACAGAAGAGAAAATATAATAAATTAA
ATAGTGAATTGAGCATCACTAGAAATAAAATAAATGAGTAGGCATTCTTAAGATGTGAAA
TGATCACCTAAGATATACATCTCCAACCATATTGATTTTGAACAAAAACAGACAGCCC
ATAACAGTTTGCGCCTCCACTCACTGCTCTGCTGCTCCCATTAAGAGGGTTATGTT
CTCCTATTTTTAAAAATAAAATGGTAGTTTAAATTAGCCTGACGGGATGTTTCCT

ATCATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCTACT
TACCAGCCCTTGAACCATTCTATATGATGCTCCTCCCAATATTCTGAAACATGTGGTTG
GACAGTTCAGTAAGGTAAGAAATGCCAGCCTCTAAGGGGAGGAAGAAAATTTAAATGATT
TGTTGTTATTTTTTTCTGTTGGGTCAAGTACGCTTTTCTGTAACACGGGGTCATGGTTT
TACTGCTTAACCTCTACCAATCTGTATGGACAGAGAAGTTACCTTAATAAAATTCACATG
TAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAGTCCCT

[illegible]

nnnnnnCGACCTTCGAGGGGGGGGCCCGGTACCCAGCCTTTTGTCCCTTTAGTGAAG
GGGTAAATTGGCGGCTTGGCCGTAAATTCATGGGTCAATAAGCCTGTTTCCCTGTG
GTGGAAAAATTGGTTATCCCGCTTCAACAAATTTCCACACCAAAACATTAACCGAAG
CCCGGGGAGGCATTAAGGTGGTTAAANCTGGGGG .

[illegible][illegible][illegible]

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTGTCTTGATTAT
AGTAGCTTCATAGCGAGTCTTAAAGTCAGGTAGCAGGTAGCATAATTTCTCATTTGTTCT
TTTTCAAGATTGTGGTAGATATTATTTTATTATTATTTTTTTGAGACGAATTCCTCACT
CTTGCTCCCCCAGGCTGGAAGTGCAGTGGTGTGATCACAGCTCACTGCCTCCGCCACCTCC
TGGGCTCCCCGCGTACCTGCCCCG

CCGCGGTGGCGGCCGAGGTACTTTTTTTTACTTTTTTTTTTTTTTTAAGAACTGG
GTCTCTCTGTACCCAGGCTGGAGTGCAGTGGCAACGATCATAGCTAACTGCAGCTTTGA
CCTCCTGGGCTCAAGTGATCCTCCTGCCTCAGCCTCCTGAGTAGCTAGGACTACAGGTGT
ATGCCACCATGCCTGGCTAATACAAAAAATTNTTTTAAGAGATGGGATCCCTCCCTTTT
AAAATCAGAACTTGTTACATGGTGGTTGCTTGTGGCAAACGGAGTTCAAATTTTGCTC
TCCTATTGCTATAATTCTGCTAGCAATCTGTTGAGGTGAAACTTGGGATCTGACTCTTCA
GCAAGCAGCAAATGACCTAGTAACCTCAGGGACAACATTTTTGAACTTTAAGTGCCACTT
TAATGCAGTTAGTT

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTATGTGGAGGAG

Table 1

ACTGCAAGGAAGCTGTTATTCAAAGTAGAACAGTCAGCCTTGTGCTTGAGTCCTGCTTTA
TGCTTGCGTGTTTCATAACAAAACACAAAGGCAAGTCTTCATATCAGCACTTAGTCTTGA
TATCCAAGTAGCTGACTACTGTACCTGCCCGGGGCGGCCGCTCTAGAAACTAGTGGATCC
CCCCGGGCTGCAN

Sequence 1281

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTGGANAGGAC
CNTNTNAAAAAAAAAACNTNAAACNGAAAAGGATTNNTGTTTNAATATTGACANAANCCA
AGGAACACCATCTGAAGTTCTGATGGCAACATCAGAAGCTAAGAGAAAGGCATGGAAAAG
ATTCTCACCTAGAGCATCCAGAGGAGAAGGTTGGTCTGCAGACACCTTGTTTTCTGACC
TCTGACCTCCGCAACTGTGAGGGAAGAAATTTCTGTTGCTTAAAGACACACAGCTTGTGG
TACCTGCCCCG

Sequence 1282

CCGGGCAGGTACGCGGGGAAGGAACAGAGGCCACTTGTATATATAGGTCTCTTCAGCAT
TTATTGGTGGCAGAAGAGGAAGATTCTGAAGAGTGCAGCTGCCTGAACCGAGCCCTGCC
GAACAGCTGAGGAATTGCACNTGCAANCCCTTNAANTGANNAACCAANTAAGAAATTTCC
CTTTGGGNANAAGCAANGCCCTACNGGGCAAACCTTAAAAAANTGNCCANTNTTCCACC
CNTGGNAAAACCTTTGTATTGGNGAAGGGGNGGGAAAAAACCTCCCTNTNGGAATAGNA
NTTTTTTGAAAGGAACCAANAGNTTTNTTTTTTACCCCGGGGAACCTGNANGTTTTTT
CCAGGAAAATTCTGTTTGAAAATTTNAAAAAGNCCCANCCAANTNGATTGGCAAAACN
CTTAACNTTGGGGGCCCTTAATTCNTAAAACAGNCCAACCCCTTCCANNAAGGGGGG
CCAAAAAACNNAAAGGGCCAATAGCCCCCCTTGGGNAAAATTGGCTTNTNANCCGTT
TAAAAAAGG

Sequence 1283

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGGGGNAATTGGGCATAATTTACTA
GCCAATTTAGGAAGTTCCCTCACATCAGTAACATACAGTACATCACCCAGTATGTCAGA
GGACACAATGGCATAAGTTTGCCTTTCGAAGGTTTGAGGGATGGCCATTTCCCGACCTGA
CTCAGGAAAGTCTGTAGCTGATATCCATCTTCAAGTTTGNNGNTCTTCTCTATATAT
ATATTTGAGTNCAGCAGTCATGCTGGAGTCCAGAGTAGGTGATTCTTTCTGCTTAGCTT
GACTCCTCCTTAAGATTGCAACTCTCTCAGTTTTACATTTTTTG

Sequence 1284

CCGCGGTGGCGGCCGCCGGGCAGGTACAACCTCCTCCTAGCGTTTCTGGTTAACTATGT
GAACACACAGGCAGACAGATCAAGCCGCTATGTGAGGGACAAATAACATACTGAAGACC
TAAAAATGTGAAGTCAGCTGAGCCTCAATTCAATCCAAACCTTTGGGGGGCTTATGCACC
ATTAGTCTGTATCATGGCCTCCAGTCATTGTCCCTCTAGAACAGGAACCTCTGAAAGGCC
TGACAAAGAAGAAATGGACAATCACAGATGCTGGTTTTGCCTTCTCATTCCCTGCAAGTCT
ACTGGATGCAGGAAGAGGGTGGGGGGTTCAAGCTGCCTGCTTAGGAGCTTAAACATGAC
AAGGGATTTTCTAATGAAAAGCTAACCAGAGATTCTCTTTTTCTATGATACCACAGC
ATCCATCATTCAAAAACCGAAAAAGGGAC

Sequence 1285

CGAGGTACAAGGACCACCAGCATCAGCATCACCTGAGAACTTTTTAAAAATGCAGAATCC
CAAGTCAGCTGAATCACAGTGTGAATTGTTAACTAGGTTTCCCGCTGATTTTCTATGAAA
ATTTCTGGTCTATACGGAGTGTATATGACAAATATATACATGTGTGGCCATGCAGACATG
CTTATTCTCACCTATGGCAAATAGAACACAGCTCTCCATGGTCAGGTGCTTCCATCCCTA
ATGGCTTCCCACAGTGAGAAAGACATTAAGAGTCAGAATACTTTTGCTGTAATTCTCTG
GTAAATTTTGGTACCTGCCCCG

Sequence 1286

CGAGGTACAGAAGAACTTGATTCTATAATTGATTGACAAAAGAAGGCCTATCCAACCTG
CAATACAGAAAGTCCAGTATCCCCCTGGAGTCACATTCGAAAGCTGCTTCAAACCTCAA
GGAAACAACCCATTGGCACAAAATGCAGTCCAGGTTCTGAGTCTTTGAGCACCTGCC

Table 1

CCGGGCAGGTA CT CATCAGATGGAATGTTTTACCTGCCGAGGTTTTAGTCATGATGTGC
TGAGCTCTCTGCGTCTGACGTGACTGACTGGTAGCTGGGCGTCGGCGTGACCCCTTCTTTC
CCTCTAGGATCACATCATGGAGATATTTCCACCTATGGGAAAATTAAATGATTGACAT
GCCCGTGAAAGGATGCATCCCCATCTGTCCAAAGGCTATGCGTACCT

Sequence 1294

CCGCGGTGGCGGCCGCCGGGCAGGTACAACTTTTACTTTGGTTTTGTTATCTGACTAT
TGGGTCCTTTGACACTTAATGGGCACCTCTTTTTTTTTTATTTAATTTAGAAGTTATGTA
ACTTCTAAAGCTATGGTCTCAAGTGTGATATCAGGATTCCTGGAATTCCTGAGAGCCT
TTCATGTAAGTCTATGAGGTCTTGTTTTCCAACATATGTATCTGTGTCTCAGGTCAGGTTTT
CTTCATGTACCT

Sequence 1295

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGGGATTTGTCTTTT
ATGAGTTACCAGTTCAGAGACTAGTTCATCTTTGGTTGTATAGGATGTTAGGATCTCAGT
TGGCATTACAGGTTAAATCATGCACCTTCAGGAACCTGGGAGCATTTTGATCCAGAGTCAC
AATCATTCTTTCTATCTTCATCCCTATGGTATGTGTGTTCTGAAGTTAACTGACAGA
TGGCAGCTGGTACCTTCAGAGCCCTCTACACCTACCTCTCTCTGGGCTTCTATTTCCACCG
CGATGATGTGGCTCTGGAAGGCGTGACCACTTCTTCCGCAATTGGCCGAGGAGAAGCG
CGAGGGCTACGAGCGTNTCCTGAAGATGCAAAACCAG

Sequence 1296

CGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGAAGTTTGCCTTCATCGTCCACTT
CAATGAGTTTCTGGCAGCCAGTGGCTGGGAAGGAGATGTTACAGTTCATCTTGAAGCAGC
TGAACGCCCTCCGAGGCGCCACGGAAAAAGAGCCCCCGCTACGCGGGATTGGGATTGGGGG
GAAAGAGGGGAGACGCGCCCATGCTTGGGGTTGGACATCTCTAGTGTAGCTGCCACAT
TGATTTTTCTATAATCACTTGGGGTTTGACCTGCCCCG

Sequence 1297

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGAAATCTGCAAGCCAGCTTCACCCCT
CCCATCGAGTTCTGGTCAGGAGGCTTCTGGTTGAGTTCAAATTGCTATAAAGTTCAGCTG
GAGCCTTCCCTTCTCCCTGTGGCCTTTCCAGTACTTTTTTTCTTTTNNTTTTTTTT
CCAATACTGTCTTAGCTGTGTTTTCATTTCTATCTGAAACTCTTGACAATATTTCA
TTTTCTATCTTGNTTANTATCTTCCAATTTCTTCTAAGTTTGACCT

Sequence 1298

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACTTTTTTTTTTTTTTTTTTTTTT
TTTTTGAATGGGTATGAGGAATTGTGGTCAAAAAACGAGAACTCTTTTTGGTGTTAA
CAGGGCTATGTCTGCTTGTCTAGTGATTCTAACCTACTGTGCGAAGGAGGCATAGCA
AGGCAAGACTGTTTAAGTATAACCATAAAGGGACTCACGCACTCTCAGGTGAAGTGCAA
ATACTGATCACGGTGCTCAACATTCTGGAGGAGTAAGCATTCAAATTCAGAAATGTAA
GACGATTTCTCAAGAAAAAGGAAAAACCTATCATTAATTTTTTAAATATACCTTCCA
GACGAGGTTTCTCAACATTTTACATAGAAGCAGGATATTTTGTCTCCTTAAGATTTGG
ACTTAAGGTCAAAGTTGTTGAAGGTTGATCGGCTATTGTAGCTTCAGGTGAAACCTANA
GAGGAGAAGGGAAGAAGATAAATCTACTATCCTAGATTCTTTTT

Sequence 1299

[illegible]

Table 1

Sequence 1300

[illegible]

Sequence 1301

CCGGGCAGGTACAGATCTCTGCAGTTACAGGAACATCGTCTGCTTCATGGTAAATGCAAT
TTCTGTTCAGAAACCACACTAACATTACTTCTTTAGTATTTCTGCCTCAAAGTTGGTT
TAAGATTATCATATTATAAAGAAAAATTTGTNCTANTTGCTGGNCCAAAGGGAAAA

Sequence 1302

AACTCCTATAGGGCGTTTTGGAGCNCCACCCGCGGTGGCGGCCGCNCTAGAANTAGCGNA
NCCGGCNTTCNGNAGGANTANTTTATCAAGCTNATCNATACCGTNGACNCCGANGGGGNG
CANNGGAACCCANACTTTGAGTAAAnnnnnnnnnnnnnnnnnnnnnnnnnnnnnNANTAAN
CATGGNCATAGCTGGGACCNGTAGTGAAAATTGTTATTCCGCTGCACAATTCCACACAAC
CATACCGAGC

Sequence 1303

AGGTACACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCT
GTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTGTGC
CTGCTGAATAACTTCTATCCCAGAGAGGCCAAAAGTAACCTTCCCGGGGCGGGCCCGCTT
CTTAAGAAACNTAGGTTGGGATCCCCCNGGGNCTTGCCATGGGAAATTCCGAATTAT
TCAAAAGGCCTTTATTCGAATTAACCCCGTTCTGAACCCCTACNGAAGNGGGGGNG
GGCCTCCCGNGTTTACCCTCAANGCCNTTTTTTTNGTTTTNCCCCCTTTTTAAGGTC
GGNAAGGGGGGTTTTAAATTTTNGCCGGCCCGGCCTTTTGGGGTCNGGTTANAATTCC
AATTGGGGNTACCAATTAAGGCCTTGGGTTTATTCNCCTTGGGTGGNTNGGAAAAAAT
TTGGGGTTTTAATTCNCCGGNCTTTCNAACCAANTTTTCCCCAACCCAACCAAAACCC
AATTANCCCGGANGGCCTCCGGGGGGGTAAGGCCAATTAANAAGGTTGGTTAAAAAAG
NCCCTTNGGGGGGGGNTTGNCCCCCTTAAAAANTGGAAGGTTGGGAAGCCCTTAANA
ACCTTCCAACCAATTTTAAA

Sequence 1304

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAGGCCAAGGTCCT
CTGTGACTCGCCGCCCACTACCCAAGTGAATGAGTCTCCCCTAGAGCTTTGCTACTCAGA
GGGGTCTGAGGACAACAGCATGGGCCAACACGTGCACTCGAGCTGCCTGGAGATCTTGTT
CAAAGGCAGATTCTGAATGAGTAGGTCTGGGTTGGAGCCTGAGAGTCTGTACCT

Sequence 1305

[illegible]

Sequence 1306

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNGCTATAAAATTGGTATTTGTA
TCCTCCTCCCATTCTGCGCTCCCCCAACCCTGCAGGAAGGTGGATTCTTCAAGGGAAGCTG

Table 1

[illegible]

Sequence 1313

[illegible]

Sequence 1314

[illegible]

Sequence 1315

TACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGATGTGGAGAG
GACCATGTGAAGAGAGAAGCTGAGACTGAAAAGGATTTATGTATTAATTGACAGAAGC
CAAGGAACACCATCTGAAGTTCTGACGGCAACATCAGAAGCTAAGAGAAAGGCATGAAA
AGATTCTACCTAGAGCATNCAGAGGAGAGGTTGGTCTGCAGACACCTTGTTTTCTGAC
CTCTGACCTCCGCAACTGTGAGGGAAGAAATTTCTGTTGCTTAAAGACACACAGCTTG
GTACCTGCCCGGCTTGGCCGCTCTAGAAGTAGTGGGATCCCCCGGGCTTGACAGGGAATTT
CNATATCAAAAGCCCTATCCGATACCGTCTGACCTCGAAGGGGGGGGGGGCCCCGGGTACC
CAAGCTTTTGTTCCTTTT

Sequence 1316

[illegible]

Sequence 1317

[illegible]

Sequence 1318

CCGCGGTGGCGGCCGAGGTACGCGGGATTGATGATGGGAGGCAGTGAGTCTTGATGATAA
GGGTGAGAACTGAAATCCCAAACACTGTTTGTTGCTTGTTTATTATGACCTCAGATT

Table 1

AAATTGGGAAATATTGGCCCTTTTGAATAATTGTCCCAAATATTACATTCAAATAAAAGT
GCAATGGGAGAAAAAAGGTACCTGCCCGGGCGCCGCTCGATGCTT
GGTGCTGAAGTATAATTAATTTGAGTGTTTGCTATGTGCCATAAATTTTCTAAATGC
CCTTACATACATTAGTTATCAAAACAACCCTNTCCTGGGTAGGGGCATTTATCCCCATT
CTTCAAGATGAGGGAACTGAGGCCACCAAAGAAATGGTTTCAAGTTTGGTACCCTCG
GCCG

Sequence 1319

[illegible]

AGGTA CTTTTTTTTTTTTTTTTTTTTTTT TTTTGTTCTTGGTTCTGAGTCCAGTC
CCCTTTCATAAACGCCCGGCGTGGCTCTCTCAGCGTCCCCGCACCTTCATGCNCAGCAN
ATTCTTGGACAACCTTGTCTTTCTCT

Sequence 1321

[illegible]

Sequence 1322

AGGTACAGATAATGAGGGTTGTA AAAATGAAAGAGAGAGGAGAGGTGAGACGAAATGAAGA
CAGCTAATTTTTCATTGACAAAATCAGGGTTCAGAGACATTTGTAGCTACACTGCCCAA
TGCAGCTACTATTAGCCACATGTGGCTACTTAAATTTAAATTAATTAATAAATTAAGTACCT
GCCCC

Sequence 1323

CCGCGGTGGCGGCCGAGGTACCAAGTCAGGTTGTTCAATTTGAGCCAACAACAGATTTCTT
GGTTATTGTGCTATTGCCACAGTAGGTCCTATTTGCATTGAATTTGTGTGTTTTAGCTT
CTCTCCTTTTACGTGTTGCTTTATGCTACTCTCCAAAAGTCTTTCTGTAGAAGTTTATT
AAGTTGTATAATTTTTCTTTGCTCTGTTTTGTTTTGTTTGACAGCCTGGGTTGGTGGTTT
TATAAGCCATTTCCATCATCAGTTTCCTGTCTCTGCTGGGGGTTATCTTAGTGCCCTCTCA
TGAATCGGGTGTTTTCAAATTTCTCCTGAGTTTCCTTGTGGCACTGGCCCGTTTGGGAC
TTTGGAGTGGTGGATGCTTTTTACACCCTTCTTCCACATTTCTCATGCCAAGGTCACC
CACCAT

Sequence 1324

ATAAAGATGATGTCTTTTGTATTGNCCTGTCTGTTTNGTATGTGTCTGAGATAAGGGAT
AGAGAGGAAACATCCGTCAGGCTAATTTAACTACATTTTATTTTAAAAATAGAGAAACAT
AACCTCTAGATGGGACAGCAGAGGACAGTTAGTANAGGCCACAACTGTTATGGGCTGCT
GTGTTTTGTCTCAAATCAATATGGTTGGAGCATGTATATCTTANGTGATCATTTACAT
CTTAGGAATGCCTACTCATTTTATTTTATTCTAGTGATNGCTCAATTCATTTAATTT
ATTATTTTCTCTCTGGGGCACCTTATACAAAATATCTCTTCACCTACTTAGTTCTAC
AGGGTTTT

Sequence 1325

[illegible]

Table 1

ATCCCTGGAGTGCCCTTGGTGTTC AAGCCCTGCAANGAAAGCANGAATGCACCTTCTT
GANGGCCACNCTCCAGCTGACCCCGGCACTGNTTNTAGTAACCTAGCTGGGTAATCTCC
CCGGGTGCCTGGCNAAGGGAAATTTCCGNATANTTCAAAAGGCNTTTATNCCNNNTTAA
CNCGGNTNNGTACNCCTTCNGTAAGNGNGGGGNGGGGCCNCTCNGGGTTTACCCCAAAT
CTTTNTATGGNTTTTCCNCNTTTTNAAGCTTGAAGGGGGGTTATAAAATCTGGACCG
TCCGGCCTTNTNGGGCCNGGTAAACATTCTAATTGNGTNTCCAATTAAGGGTCCNTGGN
TTTTATTCTCCTTGGATTGGTTGGA

Sequence 1332

TTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAGTGAGGCATTTCCTGATTTT
TACTCATAATATTTACAAAGATTAAAAGAGATAAAATTCAAATGTGAAGGCTTAAATTG
TTCAAATCCTTACTCAAAGAAATAGTGGGAAAGGTGGGTAAAGTCAGAGTCTGCTGCCGAT
GAAGGAAAAAAATCAAGTTAATCTCTTCTGAAATTATCATGATTGTGTTGGTTATNATT
CCCAAAAAAAAAAAAAAAAAAAAAAGTCCCT

Sequence 1333

AGGTACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGCAGACATCTCCATGATTGGGCA
GTTTGGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGANAAAGTGGTTGTGATCACAAA
GCACAACGATGATGAACAGTATGCTTGGGAGTNATTCTGNTGGAGGTTTCCTTTCNACTG
TGGCGTGCTGACCCATTGGGTGGAGNCCCATTTGGNACAGNNGGCTACCTTGCTCCGAG
GNCNNGGCANGCTTGCTACTAGNAANCTTAGATGNGATCCCCCGNGGNCTGGCNAGGGAA
CTTNCGTATTATCNAAGGCCTTATTCGGGATANCCCGCTCCGTACNCCTANGGATAGGGG
GTGGGCNCCCCGTTACCACCAANCAATTTNTGGTTTCNCCCTTTAAAGGATGNANGGG
GTTTTAAATATNGCTGCCGGCCTTTGGGCCGGTTAAATTCCAAATTGGGGTTCAANTA
AGTCTTGGATNTNCCCTTGGTCGNTTNGAAAA

Sequence 1334

CCGCGGTGGCGGCCGCCCGGGCAGGTACCAGGTCCTGGTGGGATGGTGAACCGTGACGA
GTACGCCATCAGGGTAAAGAACTCGTCCAGACTGTCAACTGTGATCCTGGACTCGCTGTA
GGTGAGTAGCGAGTTCTTAGATCCTAAGAGACTGATGCATACATGGGGAAAAACAAATAT
AAACCTGGCAGTTGTACCT

Sequence 1335

CGGGCCCGCCCGGGCAGGTACATTTCTTGTAGACTCTGNTAATTTCTGCAGCTCCTGG
TTGGTTCTGGAGCAGATGATCTCAATGGAGAGAGTCCTCGTCCGTTCCCAGCCCTNTCA
TTGCGAAAGCTTTTTANCNTCANAAAGCCGTTTATTACCTGAGGCCAGGGTGGTCTTTCA
AATAAGGGCCCCAAACAATTCAACCGGTNCTTCCAAGGGGTGGGGCCAAAGNATAAANGGG
CNTGGANCTTNTCAAGCTGGCTTGNATTGNCAAAAGNTNTCCCTTTTTTTTNGGGTGCCCT
TACTACTNGGTAAGGGGCGNAAAAGGGCNAATAATNCCCTNGTTNCTTCTGNTCGNC
AANANTGNCNTNGCCGNGGTATTGNNNTCCANNAATTTGGTNTGGAACCAAAATGGGGT
NGGAACCCCTTCAATTCTCCAACCAACNCTTTTTTGGGNTACNTTAGGCAATNGNGGCCT
TGNNTTTCCCAAATTTGGTTTACCACANAAGGCCAAATTCNCCCGNCTTTCAAGANCAA
TTTCNAAAACCGTTTNAAGGTNAATTAAGGGGNNCTTTTTTGGGANCANGGGAACCCCG
CNATTAATTTGNCCAACCTTTTGGGGGGG

Sequence 1336

GTGGGCGGGCCNGCCCGGGCAGGTACAGCTGAAGCCTCGTAACCCAGACTACAGAAGCAA
TAAACCCATTATTTCTCAGAGCTCTCTGTGACTACAAACAAGATCAGAAAATCGTGATAA
GGGGGATGAGTGTATCCTGAAGGGACAACAAACGAGCCGAGCAAGTGGTACCCTCGGCC
CGCTTCTAAGAACTAGGTGGGATCCCCCGGGGCTGCNAGGNAATTTCCGAATATTCA
NAGCCTTATACGAATACCCGTTTCGNACCTTCTGAAGGGGGGGGGCGCCGNTACCCCAA
GANTTTTTTTGTTTNCCTTTTNAAGTGAAGGGGGTNTAAAAATNTGNCGCCCTTT
GGGCCGTTAAATTCATGGGGTTCCATTAANGCCTGGTATTTTNNCTTGGTTGNTTGGAA
AAAATTTGGGTNTAATTCGCCGCTTCCAACCAAAATTTTNTCCACCAANCAAAACCAA

TTANCNGNAAGGCCCGNGGGGAAGGCCAATTAATAAAAGGTTGGTTAAAAAGGCCCTT
TGGGGGGGGGTTGGCCCCCTTAAATTGGAAGGGTTGGAAGNCCTTAAACCCTTCCAN
CAATTTTA

[illegible]

AGGTACAGCTGGAGCAGAGTTGCACTTCACTGTGTAGAATGGCTTTATCTGAGCCACTAC
ATTCTGCCATTGACTGCGTTNCTTCNCAATCTTTCCCAAGATCTCCACAAAAAATGCA
TTTTCCCTGTCAGGGTATGTTTCATNAAACATAACNCTTNTCAATAACANTTTCCAAAG
GGTTTTGNTTTCCTTCAATNCCAACAAGGGNTCANACCGGNAGTTAAGNTTTTTNGCCATT
CCATNCAAATAAAAAANTCCCCTTTTATTCTTCCACCCACCTTATNTTCTCAACANANAN
ACCCGGAACAGTTTANTTANAAACCCNAGGGNAAAANGAACCAAAGGAGGAACGNGGCC
ACCCAAAGCCTTAATGGTCTTGGGGTGCCCTTTANGNAAATTAATGCCAAACAAAANAATG
GTACCANAGTTTGGGGNAGGAATGNGGAACCCCCCCTTATCNATTNAGCCTNGCGTT
TNCCCCAAAGGGGTGGGCTTCAAACC

TCCTATAGGGCGAATTGGGAGCTCCACCGNGGTGGCGGGCCGAGGTACTATGGGAACAGG
TTCAAAATGAATATAAGGGAGTTATTTATATATTAGGTAAAGCACAAAATGATAATTAC
TGGACTGCACACTCACAGGTTAAAGGTCATTTGGNGCAGNAAAAATGTCCGGACCCGTT
TGGGGAAACAAGAACCATTAAACCTGCTGTGTA AAAAGGAAGCCCAAGGGGGAGGGGTA
AACCCAAAAAGCCGTTATTTCAAGAAATANGCTTGGTGGGAAAGCTTGGGGGGGAGG
ACCACCCCTTGNAAAAAAAATCCTAAGCCANATTAAGGCCGTTGGAAAAAATTCAACCTT
TAAAGNNTAAAAAAAATTA AAAAACCTTTTTCAAGGAGGGGGCCTGGAAAGGCCTTA
TTTTTTGAAAATTTTAACCCANACGNAATTTTTANGTAAGNATTGAAAATTGGCCCCAAA
AAAGGAAGGGGAATTTAAGGTAAAAAAATTTTCNTTCCCATTTGGCCNNAAAAAATNAC
CAACCCAAGGTTAAATTGGGGCNTCCCCAATTCACCGGAACCATTTTGGTTANAAAAAC
CCCCCAAAGCCCCCGAAGGAGGTTCACCTTATTGGTTAAAGGTTGGAGGAAGGTTT
TGAAGGTTGCCANAATTTTTGGTTAAATTAAGGGA AAAATTA AAAAAAACCAA

CCGCGGTGGCAGCGGCCGCCGGGCAGGTACCATCACCCCTTCATGCTGGCCCTAAGCTT
TCTCCAGCAGTCCCACTTCCTGATATTCGTTCTCTTCAGCAGCCTAAAATACAGCTTTCT
TCTGTCGCCCAAAGTAAGCCGCTGTGTCATTGCCCTAATGAACCCTCCACTTCGCCAATG
CGTTTTGGTGCTGGTGGTGGCGGTACCGGAGGNACCTCGGCCGCTCTAGAATAAANGGA
TCCCCCGGGCTGCAGAGAATTCGATATC

CGCGGTGGCGGCCGAGGTACCAACATGTCCCGTGGTTCCAGCGCCGGTTTTGACNCGCCA
CATTACCATTTTTTCACCCGAGGGTCTCGGCTCTACCAAGTAGAATATGCTTTAAGGCTAT
TAACCAGGGGTGGCCCTTACATCAGTAAGCNTGTGAGGAGGGNAANAGGACCTGTTGNC
ANNTANATNTGTTCAACCACCAGNAAAGAAAAAGTTACCCTNGCTCCNGGNGCGGGCCCCGC

Table 1

TTCTTANGAAANCTTATGNTGGGATTNCNCNCTCGGNGCCTTGCCAAGGGAAATTTCTG
ATTATTTCNNANGNCTTTTANTTCNGGAATTANCCCGNTCGGATCCCTNCGGAGGGGGGG
GGGGGGCNCCTCCCGGGGTAACCCCCCAAGGCTTTTTTTGGTATCCCCCTTTTTAAGATTG
GAAGGGGGGTTTTAAATTTTGGCTGGCNGGCCCTNTTGGGGCCGGTTAAATTNCAA
TTGGGGTTNCAATTAAGNCTTGTTTTTNCCTTGGTGGGTGGNNAAAAAATATTGN
GTTTAATTTCCCGCCTTTCAACCAAAATTT

Sequence 1342

TCACTATAGGGCGAAATTGGAGCTCCACNCGCGGTGGCGGCCCGACATCCGCCGCCCGAG
GGATCGTTGGCAGCCCGGGTGGGAGTGTGGCTGTGTTCTCGTCCCTGGCTGACAACGAAG
GGGAGCTAGTCACTTTTCTGCCACAGACGACTCGCNGTCCGCCTCTCGCCTGGAGTACC
TCGGCCGCTCTAGAACTANGTGGATCCCCCGGGCCTGNAGGGAATTCGATATCAAAGNC
TTATCCGAATACNCGTCCGNANCTCTGAAGNGGGGGGGCCCGGNTACCCAGNCTTT
NTTNGTATCCCCTTTTAAGTTGAGGGGGGTTAAATTTTGGCNGCCGCCNTTTGGGCTG
TAATATTCAATTGGGGTCCANTAAGCCTTGATNTTTCCCTGTTGGTGAAAAATTTNG
TTAATNCCCGNNTTCAACAAATTTGCCACCAACCAACCAATAACCGTAAAGCCCCG
GGGGAAGGNCCAATTAAGNTNGTTAAAAAGNCCCTTGGGGGGTGGCCCTTAA
ATGGNAAGTTGGAAGNCCTTAAATCCTTCAACCAANTTTAAAA

Sequence 1343

CCAATGAAAATTCTGTGGCCATTCCAAGAATACCGCCAGCATTGGCCTTGACAATGCCA
TTATAAAAAGGGACAAGCCCTGCNTTAAACCGTTTCATTGCCCAAGCCCTTTTAAGTTAA
GAAACAAGGCCAAAAGGGTNCACCCCTNAATTTTCAATTGGAGGGGCCAAACCTTCCATT
GGACCAAGGAAACCACCAAGGCCAAAACCAAGNAAAAGGTTAACCCCTTTGGGGGNNCC
GGCTTTCTTTAGAAAAAATTAANGTTGGGGGAAATCCCCCCCCCGGGGGGCCCTTG
CNAAGGGGAAAAATTTCCCGGAATTAATNTCNAAGGCCCTTTTAATTCGGGAAATA
ACCCCGGGTCCGNAACCCNTTCNGGAAGGGGGGGGGGGGGGGGGGGCCCCCGGGGTNN
NCCCCAAAAGCCNTTTTTTTTGGTTTNNCCCCCTTTTTTNANGTTGGAAGGGGGTT

Sequence 1344

CGAGGTACGCGGGAGGAACTGCTCAGTTAGGACCCAGAGGGAACCATGGAAGCCCCAGCT
CAGCTTCTCTTCTCCTGCTGCTCTGGCTCCAGATGCCACCGGAGACATnnnnnnnnnn
nn
nGTCAGAGTGTTAGCAGCTACTTAGCCCTGGTACCTTGCCCGGGCCGGCCCGCTCTTAGA
AACNTAGTTGGGATCCCCCGGGGCTGCCAGGNAATTCGATTATTCAAAGNCTTTATCGG
ATTACCGTTCGACCCTCGNAGGGGGGGGGCCCCGGGTACCCCAAGACGTTTTTTGTTTCC
CCTTTTNAAGGTGGAGGGGGGTAAAAATTGCTGCCGCTTTGGGNCGGTTAAATCAATTGG
GGTCCAATAAGCTTGGNTTTTNCCTTGGTGGTTGAAAAAATTTGGTTNTAATTNCCG
GCTTCAA

Sequence 1345

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCCATTACTGCAGGAAAAGGTCCCCG
GAGAGCTGAGCAGTCAAGATGTGTGACTTCACCGAAGACCAGACCGCAGAGTTCAAGGAG
GCTTCCAGCTGTTTGACCGAACAGGTGATGGCAAGATCCTGTACGTGCCAAGCATCCTC
GTGCGACCGCGAGAGCCCCGGGGAGCGGGGGCTTGCCGGCCGTTGCACTCATTTACCCGGG
GACAGGGAGAGGCTCTTCTGCGTGTAGTGTTGTGCAGAGCCTCATGCATNACGGAGCAT
GAGAAGACGTTCCCCCTGCTGCCACCTGCTCTTGTCCACGGTGAGCTTGCTNTAGAGGAAG
AAGGAGCCGTCGGAGTCCANCACGGGGAGGCGNGTGGTCT

Sequence 1346

CCGGGCAGGTACCATCACCCCTTCATGCTGGCTCTAAGCTTTTTCCAGCAGTCCCACTTC
CTGATATTGTTCTCTTCAGCAGCCTAAATACAGCTTCTCTGTCCCCAAAGTAAGCT
GCTGTGCTCATTGCCCTAATGAACCCTCCACTTCGCCAATGCGTTTTGGTGGTGGTGGTG
GCGGTAGCGGAGGTACCT

Sequence 1347

Sequence 1348

Sequence 1349

Sequence 1350

Sequence 1351

Sequence 1352

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Table 1

Sequence 1353

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCATGGTACCAACGGGCCT
GGGCACTGCATCTTCCCAGAGAAGCAGACTCCACAGGGGCCT.CATGACCATCTTTCTCTG
GAGAGCGAGGCAAACTCCCTCGACAGCCAAAATCCAGAACCTCCCCCGCGCTACCTCGGC
CGCTCTAGAACTAAGTGAAATTCGCCCGGGCTTCGANGAAATTCGATCAANGCTTA
TNCGTTACCGTNCGNACCCTCGAAGGGGGGGGNCCTGGTACCGACCTTTTTGT

Sequence 1354

[illegible]

Sequence 1355

[illegible]

Sequence 1356

GCCTGGGATACCAAGTGGCCCTGGTGATGCACCATAGATGAGGAGCCTGGGAGCCTGGCC
AGGTTTCTGCTGGTACCTNnn
nnnnnATNAAGCTTATCGATACTCGNCCGACTTTNCCAGGGGGGAAACCTGTCTGTGCCA
GCTTGNATTAAATTGAATCGGCCAACGCCGCGGGGAGAGGCGGTTTTGCGTATTGGGC

Sequence 1357

CCGCGGTGGCGGCCGAGGTACCCGGGAGGCTCGCATGTGTGGGTGCATGCCGTGGCAGGA
GAAGGATGGGTGATCCCTAAATTACCTTCCGAAGAGCCATGCATGCGTCTCTGGCTGCT
CCAGGTGTAAAAATGCCAGGGAGGGGACAATCATGAGTCCTAGGCAGGAAAGGTCCTCT
GGAGAGAGGAAATGGCACACGCGCAAGCAGCGAGGCATGAGGGGCCAGGGTCCTGGAGGA
CATGGGCGCGGACAGCATCACTACCTCAGGCAAGGAGGAGATGGCGCCAGACTGTGATCA
TAAGCTTCACGATCCCCGCGTACCTGCCCCGGCGGCGCGNTCT

Sequence 1358

CTCATAAAGGGAATAAGCTTGCGGCCGCTTAATTAAGATCTTTTTTTTTTTTTTTTT
AACCTTTAATCTCTTTGGACTTTATCCTTGGGCTTTTCTGAAAGCACTTTCTGTCCAGCC
CTTGCTGTACCCAGCCAAACCTAGCTACCTCACAGGCCCCCAGCAGCTTTCTGGCTCT
GCTTCNAGCCCACCGGCTTNC AACCTTCCCATAACAATTGGTGCTACCAACCTTCCN
ATAACCCCCCTGGTCCCCCAACCCCTCCCCAATTACCTGGGNTCCCTTTCAACCTTTT
NCAACNAACNTTNGTTTCTCCNCAACCCCNCTTTTTAACCCTNTTTTTGGCCCTNCCC
CCCTTCNTTAACCTTTTTTTTTGGCTTCCCCATNGGGNTGNCGTTTTTTCCCAATTTT
TGCGCCAAACCTTTTGNAAAAATGGNAACCCCCCNCCAATTGGGGGAATTTTATTTTGG
TANGGGGTTTTTGAAAAAAGGNTTTTTTNCCTTAAGCCTCCNTGGGGGTCTNTAAAAA
AANNAATNCANCTNTTTTTTGAAAAAANTTT

Sequence 1359

CCTCCTAAAGGGAATAANCTTGC GGCCGCTTCATTAATAAATAGACAAACTTCTTATATC
TCTGCCTTCTGACCATCAAACCTGAATAATTTTAATTCAACAGGTCTTATTTTCATTTCT
TTGAAATTTTCTAATTGCCTTCCTTTCCAAGTTTACCATAGGTGCCTTGATTCCTTTCT
NGGAATAACCGCAANAAAAAGAAAANAANTGGGAAAAAANTAAAAGTTAAAGGGGTAA
GGGGAATTTANTAAAAAGGAAGGTTTCCCTTCCCTTGGATTTNCNTAAAGGTTAATTCN
GNGGAANCCCCAAAAAACCTTGGGTGGGTTGGTTAATNCCTTTTTCCAAGGGGAAAAAG

Table 1

GGGGGGGGAAGNAAGGGGAATTGGNGGCCAACNCCCAATTCNTTTCTTCCCCCTTCNA
AAATTTGCCCCAAGGGGAACCNCTTCCCCCCCCCTTNCCTTNGGGAAGGGGAACC
CNTTAANCTTTCCAACCNCCANTTGGCCCTTTCCCCCTTTCCCCGGGAACCAANNAAG
GGGGCCCCCAATGCNAACCTTTTTCNAANTAACCNNTTGGNTTNTTGGNAAGNGGGGNG
GNGGAAAAAGNCCCCCAANGNCTAAACCCCAACCAAAAAAGNCCCTTGNCTAAANGGN
GGAAGGGAAAAAANTAAGGGGGTTTTGGGGGGGAAAAA

Sequence 1360

CCTCCTAAAGGGAATAAGCTTGCGGCCGCTTAATTAAGATCTTTTTTTTTTTTTTTTT
TTTTCTTTNAAAACAGCGTCATACTAAAGTTATTTTTCTTACACAATTATAGAATTC
AGGCAGACAAGGAGACATATATTGGAGTTTTCCATTTTAATATTTGGTTAAACAAAATA
CATNTTTTTGNTAAANCAAAACCGNCANGCACCAAAGGGCCAAACNAACCAATAANGGG
AATAAAAAANGCCANAGGAAANAAAACCAATAAAAAANGCCCTTAGGGGGGTTTGGCNC
CCGTTATATTGTGGGNGNCAATTCANGGGGGTTCAAGGGGGCCNTTNGGTTNCAANCTTT
CCCCTTTAAAAAAGGGGAAAAAGGTNNGGGGGGGCCTTNTTTNTTNGGCCCTTNTGG
GGNGNCNANTTANAANGNCATTTGGGGGGGTCCCCTCTTNGGTTNCCCNNTAAAGGC
CAACCCCAAGGAANATTTTGGGGGAATNTATTNGNANACCCANGGNANGTAAAAACCC

Sequence 1361

CTAAAGGGAATAAGCTTGCGGCCGCTTAATTAAGATCTTTTTTTTTTTTTTTTTTTT
CAGGTTGGACGAGTTTGTATTAAGGCATTCTGACTCCTTCACTCTCCCCAGCTCCCTCCA
TGTCAATCCCTTGGCAGAAACACTGTAGACTTATAAATGGATGACAGATGCAGGCTTTT
AGAGGGGACCAAAAAGGGAACCACTTCTTCCCACTTGGGGGGTGTGGGGGGTCAAGTC
CATTCCTTGGGGAGGGGGNGCTTGGACCATTTAGAAGGGGGCNAAAAGCTTCAAGGGGNC
TTTACCAGGCCACNAGGCCACCATTATTGCCCATCTNTCTTCCCTTGGTGCCAGG
CTTCAATTTATTNGGGGCAATTTTTCTTGCCAAAGNCTTTTCC

Sequence 1362

CNGCCCGAGGTACTTTTTTCTTAATTTTTTTTTTTTTTTTGAACCAAGCAGGTGTATT
CTGGAAGAAAATCAGACACCTCCCTGGTTAAGAATTAGTAACTATAATGTATTGGTGA
ATTGAGTTTATAGTCTTTTGGTGGGGGTAAAAGGGCCCTCAAAGTCATAGCAGGTTTAGT
TGTACCTGCCCG

Sequence 1363

ATNGGAGCTCCCCGCGGTGGCGGCCCGAGGTACATTTCTTTCTGTGGTTTCTTTTGT
TCTTAGAAATCTGTAGTGGTTAGTAAAGAATTTGAAAGTACGCGGGGCTTTCTTTCCG
CGCCGATAGCGCTCACGCAAGCATGGTTANCNTGCCTAAAACCCGCCGGACTTTCTGTAA
GAAGTGTGGCAAGCACCAACCCATAAAGTGACACAGTACCTGCCCG

Sequence 1364

AGGTAATCAGAGTGAGGATTTCTGCAACCTGCGTTTGTCCCTCCAGCATCTGCTCTGGC
TCCATGGCGGACCTTGCAAGTCACAGTCCCCGGATACCAGTCTGGGCGCCGGGAGCACCA
CGAGCAGTAGAGCAGCAGAGTGGGACAGTCCACGACTGGGCGCCTACATGGGGTCTGGAA
ACTCTACGACAGTCCCAAGTACCTGCCCG

Sequence 1365

AGGTACCTTGGTGTTACTTCTTTGAAAGATGGACATTTGAAAGTTAAAAATCAGTCACT
ATATAGGCACTGCTGTATGGAACGCATTTTGTGTTTCTACAAATTGAAGCGGGAAA
TGCTTTTGGAGTACCTCGGCCCCGCTCTAGAACTAGTGGATCCCCCGGGGCT

Sequence 1366

CGNGGTGGCGGCCCGCCCGGGCAGGTACTGTTTACTACACACTTAAAAACCCGAGTGTCNA
GTGCCTTTAGGGGAAGAACACTTCTGCCTGCATGAAAATGTCTTAAAAGTGAAGGAAAAT
TTGAAGAACGCTNTTGATCAGAAGTCCAGACTGTAAACATAATC

Sequence 1367

GGNGGCGGCCGAGGNACGAGGGCCTTGGTTNAGNGGGGGGAAAACCCCAAACCGCAAAAN

CNNCAGACNGCAGGCNGCNGNNNGTGAGAGNGAACGGGGNCCCACNCCCANANACACNGA
 ACCNGGCNGGGANACCAGNGGCCNCGNGGANGACCCANAGANGAGGAGCCNGNGAGCCA
 GGCCTGGTTNCNGCGGGGACCNGCCCG

ACTATTAGGGCGAATTGGTAGCTCCACCGCGGTGGCGGCCGAGGTACTTTTTTTGTTG
TTTTTTTTTTTACCTTAAGGGAGGATTTAATTTGCTCCCAACTGATTGTCACTTAAAT
GAAAATTTAAAAATGAATAAAAGACATACTTCTCAGCTGCAAATATTATNGGAGAATN
GGGGCACCCACAGGNAATGAANAGAGGAAAGCANCTTCCNTAACCTTCAAAACCATT

CCGGGCAGGTACCAAATGGTTTTGAAGTTAGGGAGCTGCTTCTCTCTTCATTCTAG
TGGGTAGCCCCAATCTCTCCATAATATTNTGCAGCTGNAGAAGTTATGNCCTTTTATTCA
TTTT

GAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTA CTGGGCTCTGACCACTATTGGTTTTG
AGACCACGATGTTGGGAGGGTATGTTTACAGCACTCCAGCCAAAAAATACAGCACTGGCA
TGATTACACCTTCTCCTGCAGGTGACCATTGATGGCAGGAAC TACATTGTCGATGCTGGGT
TTGGACGCTCATACACGATGTGGCAGCCTCTGGAGTTAATTTCTGGGAAGGATGACCCCTC
AAGGTGCGTTGTGCTTTCCGTTTGACGGAAGAAATGGATTCTGGTATCTAGACCAA
TCAAGAAGGGGAACAGTACCTCGGCCCGTTTAGAAGTATGGATCCCCCGGGCT

CCGGGCAGGTACCAAATGGTTTTGAAGTTAGGGAGCTGCTTCTCTCTTCATTCTGTG
GGNGCCCCAATTCTCCATAATATTNTGCAGCTGGAGAAGTATGCTTTTTATTCAATTT
TAAATTTTTCAATTTAAGTGACAATCAGTTGGGGAGCAAATTAATCCTTCCTT

NCCGGGCAGGTA CTTACTTGATGTGACTCTCCTCTCATGCCTGGGCCCTGCTTACAGGTG
TGATTGTGACACATAGCTTGGCCTAGCCCTAGGTTATGTNACTCTCCTCTTATCCTTCA
GTTATTTTCA AAGGGGCATTGCGACATATTGCTGGACTTGGGAACCCAGGTGATGTGAC
TCTCCTCTACTG NCTGGAATCAACCCANAAAAA AATNAANANAAAAAGNNCCCTN
CGNCCGCTCTAGAAANTAGTGGATC

CCGGGCAGGTACCAAAATGGTTTTGAAGTTAGGGAGCTGCTTCTCTCTTCATTCCTGTG
GGTGCCCCAATTCTCCATAATTTTGCAGCTGAGAAGTATGTCTTTTTATTCATTTTAA
ATTTTCATTTAAGTGACAATCAGTGGGAGCAAATTAATCCTCCCTTAAGGTGAAAAAA
AAAAAACAAACAAAAANGTACCT

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTGATTGCATTGCACTT
AAATGCAGATTATTTTGGAGTTTGAAAAGGGACTATTAATGAAATCTTCTTTTCCCTCC
TTTCTCTTTTCCCTTCCCCGCCACTGATTCA GTGAGCTGGAGATTGGATCACAGGTATA
ATCAAGCTTTCATGTAGTCATGTAGATCACTAGACTCCTTGGTGTACCTGCCCCG

ACTACTATAGGGCGAATTGGGAGCTCCCCGCGGTGGCGGCCCGCCCGGCAGGTACTTTGG
CCTCTCTGGGATAGAAGTTATTCAGCAGGCACACAACAGAGGCAGTTCAGATTTCAACT
GCTCATCAGATGGCGGGAAGATGAAGACAGATGGTGACGCCACAGTTCGTCTCATCTCCA
GCCTGGCCCCACCAAAGTGTCGGCCAGTTATTATACTGCTnnnnnnnnnnnnnnnnnnnn
nn
nn

AGGTACCTGNAGGCCTCCTACACCTACCNCTCTCTGGGCTTCTATTTGACCGCAGATGA
TGTGGCTCTGGAAGGCGTGAGCCACTTCTTCCGCAGAATTGNCCGANGAGAAGCGCNGAG

Table 1

GGCTACGAGCTGTCTNCTGAAGATGCAAAACCAGCNTGGTCGGCCGCTNTAGAACTAGAT
GANATCCCCCGGGCATGCAGGTAATTCGATATCAAAGCCTT

Sequence 1377

CCGGGCAGGTACCAAAATGGT.TTTGAAGTTAAGGGNGCTGCTTCTCTCTTCATTCCGTG
GGGGGCCCAATTCTNCATAATATTTTGCAGCTGAGAAGTATGTCTTTTATTCAATTTT
AAATTTTCATTTAAGTGACAATCAGTTGGGAGCAAATTAATCCTCCCTAAGGTGAAAA
AAAAA.AAAAA.CAAAAGTACCTN

Sequence 1378

[illegible]

Sequence 1379

CCGCGGTGGCGGCCGAGGTACTTTTCTAGTAGTGACCCAGTAAATATCTNTNCAACAA
ACTTGGCTTTGCTGGTGTGCAAAGTGAATATAAGGAAAATTAGTGACATTTTTTGCCT
TTTAGTGTGTAACNTGGGAAGTGTATANGATAGAAAACAGAGAGATAGTTATATATTTA
ACAACCTTGAAAATTCATAGGTGTAATAGATTCTNTTTTTGAAATTAATATCTCCTAGG
ATTTTGATCACTTACAGTGTTGTATGCACACTCTTA

Sequence 1380

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTCCAAAAGCCTTGTTTTATTTATATAGAGTCCTAACCACTTCGGTGGTAGGAGGGGTG
GGAGAGGCTCCTTTTTCAA

Sequence 1381

AGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGCAGGTACTGTGTATCATTGCA
GNCTTGCTTTTTTGTAGTAATGGATTCTAGATTCTATGAGGATACCACAACCACTTTTAA
AGAGGTTTCTAAGGNCAGTTGCAGTGCTTACGCCTGGGAGACCAAGGTGGGAGGATCACT
TGAGCTCAGGAGTTTCGAGACCAACTTTGTCNTT

Sequence 1382

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACTTNNNTNTTTTTTTTTT
TTTTCTTCTTAGTTGTTCTTGGTTTCTGAGTCCAGTCCCCTTGCATAAATTCAT
GCGCAGCAGGTTCTTGGACAACTTGTCTTCTCTCGGCCGCCATGGTAGGTTCCGCCCA
GCGCCGCACTC

Sequence 1383

[illegible]

TAGTGGAGGGTTAATTGC
 GCGCTTNGCGTAATCATGGGTCATTAGGCTGTTCCCTGTGTGAAAATTGGTTATCCGC
 TCACAATTCCACAACAAACATACCNAAACCCGGGGAGCANTAAAAAGTGGTAAAAGCCCT

Sequence 1384

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAACAGAAACCTGGCC
AGGCTCCCAGGCTCCTCATCTATGATGCATCCAACAGGGCCACTGGCAAAAAAAAAAAAAA

Table 1

AGCAGCGTAACCAACTGGCCTNGGTTAACTTTTCGGNNGG
 ANGGACCAAAGGNGGAGATCAAACGAACTGTGGCTTGCACCATNTGNCCTTNATCTTCCCN
 CCATTTGNTGAGCANTTGAATTTTGGAACTGCCTTTTGNTTGGNGGGGGCCTGCTGAATA
 ACTTCTATCCCCAAGAGAGGCCAAAGTTACCTGCCCGGGGGCCGGCCCCGCTCTAAAAC TAGT
 GGGATCCCCCGGGGTGCAANGAATTCGATATCAAAGCTTATCGATACCCGTCGACCTTCG
 AAGGGGGGGGGGGGCCCA

Sequence 1385

CNAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGGGGGACATTCATGCCCGGCGG
TTCGGGGCGACGGACTCTCCATTCCAGAACCATGGCCCAATTTGTCCGTAACCTTGTTGA
GAAGACCCCGGCGCTGGTGAACGCTGCTGTGACTTACTCGAAGCCTCGATTGGCCACATT
TTGGTACCTGCCCG

AAAAAAAAAAGGCTGGTGTGTTGATGCGTCACAAATCCACACAACATACCGAAGCCCCG

Sequence 1386

GCNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA CTTNTTCTGTGTGACAATTA CTGCA
CAGTCTTTCCCTCTGACAGCTACTGATGTAAGGCCACCCTGGTTAATAGCCTTAA AAGCA
TATTCTACTTGGTAGAGCCGACCCTCGGGTGAAAAA ATGGTAATGTGGCGGTCAA AACCG
GCGCTGGAACCACCGGGACATGTTGGTACCTGCCCGnnnnnnnnnnnnnnnnnnnnnnnnnn

GAGGGTTAAATTGCGGCGCTTTGGCGTA
 ATCATGGTATTAAGCTACATTACCGAGCCCGGGGAGCATAAAAAAGTGTAAGCCTGGGG

Sequence 1387

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAGAAATGCATGAACTGGCAANTTATT
TGTGACTGCAACAGCCCCTGCGTGTTCAGGAGTGTGTCTTCCAATCTGNCCTAAGGCCCA
AGCAGCTGCAGCCTTAATATGATCTTCCGGTCTTCTGACAAGCANACTGACAACTGGGG
TACCTGCCNG

Sequence 1388

CTTNGGCGGCCGCCGCGGCAGGTTCTTTGGCCTCTNTGGGATACGAAGTTTTTCANNACAG
GNTCACAACACGAGGCAGTTCAGATTTCAACTGCCCATCAGATGGCGGGAAGATGAANA
CAGATGGTGCAGCCACAGTTCGTTTGATATCCACTTTGGTCCCAGGGCCGAAAGAAGGCA
GACCAAAATATTGCTGACAGTAATCCCGCGTACCTNGGCCGGACCA

Sequence 1389

AGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCCGAGGTACGCGGGAGGAACTGCTCAG
TTAGGACCCAGACGGAACCATGGNTTCCCCAGCGCAGCTTCTCTTCTCTGCTACTCTG
GCTCCCAGATACCACTGGAGAAATAGTGATGACGCAGTCTCCAGCCACCCTGTCTGTGTC
TCAGGGAAAAGACCCACCCTCTCCTGCAGGGCCAAGTCAGAGTGTTGGCAGCAACTTTGC
CTGGTACCTGCCCCG

Sequence 1390

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGANGTCCNNNNACACCCNNNGTGC
ANNGGTCTTGCGTNGCCNATGCCNCCACCATTGTCCANAAGACTCAGTTAACATTATTG
CAGTACAGACGGTTATTGATCCACGATGATAGAAGAGGAT

Sequence 1391

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTGGCCTC
TCTGGGATAGAAGTTATTCAGCAGGCACACACAGAGGCAGTTCAGATTTCAACTGCTC
ATCAGATGGCGGGAAGATGAAGACAGATGGTGCAGCCACAGTTCGTTTGATCTCCAGCTT
GGTCCCCTGACAAAAGTGTACCT

Table 1

Sequence 1392

CCGCGGTGGCGGCCGCCGGGCAGGTACTGTGCAATGCCTCAGGTTGCACCTGACTTATA
TGCTGAACTACAGAAGGCACATTTAATTTTATTCAAGGGTGATTTGAATTACAGGAAGTT
GACAGGTGACAGAAAATGGGAGTTTTCTGTTCCATTCATCAGGCTCTGAATGGCTTCCAT
CCTGCACCACTCTGTACCT

Sequence 1393

[illegible]

Sequence 1394

CGAGGTA CTGTCG TCTCCCA ACTCCCAC CTACAG GGGCCCGGGA ATCTCTAG GGAGCGGATA
AAGGCCTGGGAGAGGGAGCAAGATGGGCTCCGCCACGAGATCCGGCTGAAGTCCGGCTCG
GCGCCGGCCTCAACTGCAAGAGGAAGGCACTCTCTCTCCCAAGCTGAAACACCAGAAGA
GCCACACT

Sequence 1395

GACTTTGTTTGTTTTTTTTTTTTTTTACCTTAAGGGANGACTTNAATNTNTTNCNTNT
GACCGCCACTTAAATGAAAATTTAAAAATGAATAAAAAGACATACTTCTCAGCTGCAAAT
ATTATGGAGAATTGGGGCACCCACAGGATGAAGAGAGAAAGCAGCTCCCTAACTTCAAAA
CCATTTTGGTACCT

Sequence 1396

[illegible]

Sequence 1397

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGCAGGTACTGGAGGAGTGAGTCC
CTATGCTGACCCCAATNCTTGAGAGGTGATTCTGGCGNCCCTTGATAGTTCACAAGAG
AAGTCGTTTCATTCAAGTTGGTGTAACTAGCTGGGAGTAGTGGTGTNTGNAAAAACCAN
AAGCGANAAGCAGGTACCT

Sequence 1398

ACTACTTAGGGCAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACCGCGGGAGCTTCTCC
TTGCCAGTTTCTCCACGAGGACCCTCTTCTTGTTTTGAAAGATGGTCGGCTGCTTTTGG
TAGGCACGCTCAGTCTGAATGTCCGCCATCTTCC

Sequence 1399

GTACGCGGGGAGGCTCGCGTTNGAGTGC GGCCTGGGCGNTCCTACCATGGTTTNG
AGAGAAAGACAAAGTTGTCCAAGAATCTGNTGCGCATGAAGTTTATGCATAGGGGACTGG
CTCAGAAACCAAGAAACAAGTAGAAAGAAGAAAAGAAAATCATTAGTGAAGAGCACTGGT
ACCT

Sequence 1400

GCGGTTTGGCCNCCGAGGTACCAACANAAACCNGCCAGCTCCCANGCTCCTCATCTAT
 GATGCATCCAACATTTTTCACTGGCA^{တတတတတတတတတတတတတတတတတတတတတတ}
^{တတတတတတတတတတတတတတတတတတတတတတတတတတတတ}TTNAGNGTATTACTGNCAGC
 AGCGTAACAACCTCGTACCTCGGGC^{တတတတတတတတတတတတတတတတတတတတတတ}

Table 1

nnnnNGATATCAAGCTNATCGATNCCGNNAGACCTCGAGGGGGGGG

Sequence 1401

TAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTT
AGAGATGGGGGTTTCACCGTGTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATC
CACTCGCCTCGGCCTCCCAAAGCGCTGGGATGACAGGCGTGAGCCATTGCACCAAGACCC
GATAGGTCTAAGGGGTCTCATTGAGTCATTGTATATAAATTTTTTTTCAATGTTTTT
GTCTAAAAAACTTTAGACAGGGAATGCACTCTCCAATTACCTTCAACTGCTACCTNTCCT
TATTTTAATNCCNAAAAACNNATTTTGGCCTTTAACAATTTTAANNAATTTAACCCCAA
AAATTTGTTTNTTNTTAAAAAATTNTTTTTTTATTTNGGNNGGGGGCCNANCAAAANCNGG
GGGGGGACCCNNGGGGGGGGTTCANTTTTCNCCNCAATTTTAACCNGGGTTTCCCNNGGA
AAACNGGNNGAAAAAAGTNGGGGGGNCNTTTTCCCAATTNAAAAAANTNGGGGAAANAA
ACCTTTTAAANNANGGGGGTTTTTTTNCITTTTNACCNNNNCAAAAAATNNTTTTTTT
TTT

Sequence 1402

AGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACGCGGGGAGAACTGCTCAGTT
AGGACCCAGAGGGAACCATGGAAGCCCCAGCTCCACTTCTCTCCTCCTGCTACTCTGGC
TCCCAGATACCACCGGA

Sequence 1403

[illegible]

Sequence 1404

[illegible]

Sequence 1405

GGACCCCTTATCGACTNCTATAGGGCNNATTGGAGCTCCCCGCGGTGGCGGCCGAAGGAG
AAATAGAACAGTGCAGGCAAAAGAAGAAAGGCGCGGGCTGGGTGGGAAGAGGATTCGGAC
TCGTCACTGTCAGAGCAGCAGAGCGAGAAAGGATGAGAAGAGGCAGAGAAGGCCACGGC
AGAAGAAAAAAGGAAAAACTnn
nn
nn
CCTGTGGTGAAAAATTGTTATCCCGCTTCACAAATTCCCAACCAGCAATACCGAAGCC

Sequence 1406

CCGCGGTGGCGGCCGAGGTACAGAAACATTTTAGAAAAAGAAAGGGAACCTCAGCAACTG
GGAATCACAGAATACCTAAGGAAAAACATTGCTCAGCTCCAGCCTGATATGGAGGCACAT
TATCCTGGAGCCACGAAGAGCTGAAGTTAATGGAACATTAATGTACCTGCCCGnnnnn
nn
nnnnCGACCTCGAGnn
nnnnCGCTTGGCGTAACTATGGTNTAAGCCTGTTTCTGTGTGAAAATTGTTATCCCGC
TCACAATTTCCACAACATCATACNAGCCCGGGGAGCATTTAA

Table 1

Sequence 1407

[illegible]

Sequence 1408

[illegible]

Sequence 1409

[illegible]

Sequence 1410

CACGCTGGTTTTGCATCTTCAGGAGACGCTCGTAGCCCTCGCGCTTCTCCTCGGCCAGTT
CGCGGAAGAAGTGGCTCACGCCTTCAGAGCCACATCATCGCGGTCGAAATAGAAGCCCA
NAGAGAGGTAGGTGTAGGAGGCCTGCANGTACCTnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nn
nn
nn
nn
CATAGGCTGTTTCCTGTGTGNAAAATNTGGTTATCCGGCTCACAAATTCACCA

Sequence 1411

[illegible]

Sequence 1412

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTAAAGNGATTGCAGTTAGTTTATTGAA
ATGGAATGAATTTGAGGNTTCAACAGTNGNCTAGCAGTTTCCACATGAAAAAGGACAAC
NCNAAGTAGAAGTAAAAAGNTGNGNTTTCTTAGGNCCCCNAAAAANNTANNANTTTT
TTTGGGCCCCCGNAAAAANANAAAAATTCCCCCCCNAAAAANGGGGNGGGGGGGNAAAA
NATTTTTTTTTTGGGGGNGNGNAAAAAAAAGGGGNGCCNGNTTTTTNTTTTTTTNG
NNCCCCCCCCCTTTTTTTTGGGGGGGGGGGGGGGGGGGGGGGGCCCCCCCCCCCCCTA
AAAAANTTTTTTTTTTAAAAAANNGGGTNNGTTTTTTTGCCCCCCCTT
TTTTTTGGGGGGGTNTTTTTTTTTAAAAAANAANGGGGNGNNTNNNNCCCCCN
CCCCCCCCCGGCCCCCCCNNTTTTTTTTTTTTTTTTTCCCCCCTATTTTTGGGGGGG

[illegible]

Table 1

GGGGGGGGGGGGTTTTTTCNCCCCC

Sequence 1422

AGGTACCTGCACAATGTCTACCCAGAGATGTTTGTTCCTGACCTGACGCCACCTTCTAT
GGTGCCATCAAGAACCTNGGCACCAACCAATGCCTGGATGTGGGTGAGTAACAACCCGCG
GNGGGGGAANGCCCCCTCAATCAATGGGNTTTTTNAAAAAAAAAACCCCTNCCCCTTT
TTTTGGGGGGNGTNCCTCCGCCCCCTTNCCTCGGGATTTGGGGGGTTTNGTTTTTTT
CCCCCGGGGGGGGGGGGGGNNTTTTTTTTTTTTCCCCCGGGGGGGGGGGCCCCC
CTTTTTTTTTTTTTCCCCCCTTTTTTTTTTAAAAAAGGGGGGGGGGGANAAAAAAA
AAAAAAAAAANCCCCCCCCCTTTTTTTTTTAAAAAAGGGGGGGGNTTTTTTTTTTG
GGGNNNNNGGNTNNTNAAAAAANNTTTTTTTTTTTTTNCCCCNNGGNNCCCCC
CNNNNNCCCCTGTNGNCCCCCTNTNNNCCCCCGGGGTNNNNNTNNGGGGGGGGTTTTN
NNGNTTTTTTCCCCCCCCCTTTTTTTTTTTTNGGGGGGGGGGGGNNCCCCCCCCC
NAAAAAAAAANANATTTNTTGGGGGGGGGNTTTGNANNAAAAAA

Sequence 1423

AGGTACATATTTATGCCAGAAAGCTTGACAAACACTGAACAGTCTGTAAAAAATGGAA
AATCTCTTGACCATCAATTCAAATAAATAATTTAACTATTTTGACCCAATACCTAA
ATTTTACCTTTNTAATTTAAANANTTANATTTTTTTTTTANAAAAAACCCCTT
TTTTTTTTTCCCCCTTTTTTTTTTAAAAAAGNCAAAAAANGNCAAAAAANGTAA
CCNTTTTTTTTTTGGGGGGGGGGGNNCCCCCCCCCTTTTTTTTTTNCNCCCNTTTTT
TTTTTTTTTNGGGGGGGGNGNTAANTATNTCTTCNCCTGGGNGGGGNNTTTTTTT
TTCCNCCCNCAAAAAAANGTGTNGGGGGGGGNNAAATNNTTTTNTTATANAAA
AAATTNCCCCCNNNNGCCCCCNNTTTTTTTTTTNCNCCCCCCCCNTNGGGGGGTNT
TTAATACCTCCTNNNCNCCCCCGGGGGGGGGGGGNTTNCCTCTTTTTTTTTTTNT
CCCCCCCCCTTTTTTTTTTTNAAAAAANAANGGGGNNNGTNGNGTGGCCAAAT
NGNTTATTTNTTTCCCCCCCCCTTTTTTTT

Sequence 1424

AGGTACTTTCTTTTTTGTGTGTTTTTTTTTTTCACCTTAAGGGAGGATTTAATTTGCTC
CCAACCTGATTGTCACTTAAATGAAAATTTAANAAATGAATAAAAGGACATACCTTCTCA
GCNTGGCAAATAATTTATTGGGGAGGGGNAAAAAAAAAAAAATTTTTTTTTTTTGG
GGGNNNGGGNTTNNAGGGNTTGGGGNTTCCCCCCCCAAAAAANAANCCCCCTTN
CCCCCNNTTNCNCAAAAAAATCCCCCNAAAAAANNNANTTTTGGGGGGGGGN
GNTTTAAAAAANAANAAAAATTTTTTTTTTNGGGGGGGGGGGGGGGGNGTNTTAA
AAAAANGGGNGNTTTNANAAAAAANGGGGGGGGNGNTAAAAAANGGGGNGNNGT
TAAAAAATAANAANANTTTTAAANGGGGGGGGNNNGNTNCCCCCCCCCAAAAAA
AAANGGGGGGGGNGGGGCNCCCCCCCCCTTTTTTTTTTTTNNANNCNCCNNNCCCCC
CNACNANTCCCCCTTTTTTTTTTTTTTTNAAAAAANNNTAAAAANNCCCCCCCCC
CCCCCTTTTTTTTTTTTTTTNACACCCCC

Sequence 1425

CCGGNCAGGTNCACTTGAAACCAAANTTCTAAACTNGTTTTCTTAAAAATAGTTGTT
GNAACATTAAACCATAACCTAATCAGTGNGTNCATATGCTTCCACACTAGCNCAGACC
NTTCTCACNACATNTTTACTTGGGGTTTTTTTTTCCCCNAAAANTTTTAAAAGGGG
GNTTTTTTTTTTNCNCCNTTTTTTTTTTNCNCCCAAAAAAANAANGGGGNN
TTGGGGGGGGNTTCCCCNAAAAACCCCTTTTTTTTTTNGGGGGGGGGGGNAAAAAA
NCCCCCTTAAAAAATGGGGGGGTNTAAAAAACCCTTAANAAAAGGG
GGGNGCCCCNAAAAAANNCNNTTTTTTGGGGGGGNCNGGNTTNCNCCC
CCCCCNTTTTTTTTTTTTTTGGGGGGGGGGGGGGGTTTTTAAAAAAGGG
GGGGGNNNGTGGANAAAAACCCCTTTTTTNNNNTTTTTTTTTNNNGGNTTGGGGGNT
TTTTTTTTTGGNNGTGTGNAGTNTTCCCCCNTTTTTTCTCCTTTTTTTANNAG
ACCCCCCCCCNTT

Table 1

Sequence 1431

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACATCCCC
AGTCGTGGCCCTCTGGACAAGTGGCGGGCCCTGCACTCATGAGGGCTTCCAATGTGCTGC
CCCCCTCTTAATACTCACCAATAAATTCTACTTCCTGTCCAAGAAAAAAAAAAAAAAAA
AAAAAAAAANGTNCCGTCCGGTGTAAATGGCGGCNCGGTGGAGCTCTAGGTGATGTTTGCAG
ACAGAAAAAGTAACTGTCAAGGAATTCANAGCATTGGGTACCT

Sequence 1432

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAAAATGGT
TTTGAAGTTAGGGAGCTGCTTTCTCTCTTCATTCTGTGGGTGCCCAATTCTCCATAAT
ATTTGCAGCTGAGAAGTATGTCTTTTATTCAATTTTAAATTTTCATTTAAGTGACAATC
AAGTTGGGAGCAAATTAATCCTCCCTTAAGGTGAAAAAAAAAAAAACAAAAA
AAGTACCTCGGCCCGCTCTAGAACTA

Sequence 1433

ACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACCAGGCG
AAGTTGGTGCCAACACTCCGACncc
ccccccccccccccccccccccccCGTCATCACTATTTCTCCAGTGGTATCTGGGAGCCAG
AGTAGCAGGAGGGAAGAGAAGCTGCGCTGGGGCTTCATGGTTCGGTCTGGGTCCCTAACT
GAGCAGCTCCTCCCCCGCTACCT

Sequence 1434

AACGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTCTTTT
TTGTTTGTTTTTTTTTTTACCTTAAGGGAGGATTAATTTGCTCCCACTGATTGTCACT
TAAATGAAAATTTAAAAATGAATAAAAAGACATACTTCTCAGCTGCAAATATTATGGAGA
ATTGGGGCACCCACAGGAATGAAGAGAGAAAGCAGCTCCCTAACTTCAAACCATTTTGG
TACCTGCCCCGncc
ccccccccccccccccccccccccCGCTTGCCGTAATCATGGTCATAGGCTGTTTCCCTGTGTGA
AAATTGTTATCCCG

Sequence 1435

CGGCCGAGGTACTTTTTTTNTTTGTTTTTTTTTTTACCTTAAGGTNNGATTNAATT
TGCTCCCACTGATTGTCACTTAAATGAAAATTTAAAAATGAATAAAAAGACATACTTCT
CAGCTGCAAATATTATGGANAATTGGGGCACCCACAGGAATGAAAGAGAGAAAGCAGCTC
CCTAACTTCAAACCATTTTGGTACCTGCCCGG

Sequence 1436

TCATACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACTCCAG
GCGAGAGGCGGACGCGAGTCGTCTGTGGCAGGAAAAGTGACTAGCTCCCCCTTCGTTGTCAG
CCAGGGACGAGAACACAGCCACGCTCCCACCCGGCTGCCAACGATCCCTCGGCGGCGATG
TCGGCCCGCCGGTGCCCCNAGGCTGCGGGCCACCTACCACCGGCTCCTCGATAAAGTGGA
GCTGATGCTGCCCCGAGAAATTGAGGCCGTTGTACCGTATATAAAGACAATTGCTCACAA
TGATAGCACTGAAGCACTGAGAGATATCAAAGTACCT

Sequence 1437

CTATACNGCGAATTGTTTTCCCCGNGGTGNCGGCCGCCCGGGCAGGTACACGGGAGATGA
AGGTGCGCATCCTCTCCGNNCGTAAGAAGCCTCTGGACATTGACTACATGGGGGAGGAAC
AGCTCCGGGAGAAAAGCCAGGAGCTGTGCGACTGGATCCACCAGCTGGAGTCTGAGAAGT
TCGACCTTGATGGGCNAAANCCTGAAACAGCAAGAAAATATGAGATCAACGTGCTGTACC
TCGGC

Sequence 1438

GACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCGGGCAGGTACCNTGCA
GAAACCTGGCCAGGCTCCAGGCTCCTCATCTATGGTGCATCCACGAGGCCACTGGTAn
cc

Table 1

[illegible]

Sequence 1439

[illegible]

Sequence 1440

TATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAAACTGTT
CAATCTTCTCAAAGTGATGGACTCGGAAGATGCCACGGGTGTACAGGCCATGGGAGCCCA
CCTCCTGACGGAAGCAGGTAGACAGGCCAGCATACTTGATGGGCAGGTCTCTC

Sequence 1441

CTATCACTACTTAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGC
GGGGATCCAGAATACATTTCCAACAAGAGCACTGGCCAAGTCAGCTTCTTCTGGAGAGTC
TCTAGAAGACATGATGCTACACTCAGCTTTGGGTCTCTGCCTCTTACTCGTCAAGTTTCT
TCCAACCTTGCCATTGCAATAAAAAAGGAAAAGAGGCCTCCTCAGACACTCTCAAGAGGA
TGGGGAGATGACATCACTTGGGTACCT

Sequence 1442

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTGTGTGTT
TTTTTTTTTTTTTTCACCTTAAGGGAGGATTTAATTTGCTCCCAACTGATTGCACTTAAAT
GAAATTTAAAAATGAATAAAAAGACATACTTCTCAGCTGCAAATATTATGGAGAATTGG
GGCACCACAGGAATGAAGAGAGAAAGCAGCTCCCTAACTTCAAACCATTTTGGTACCT
GCCCG

Sequence 1443

ATCACTACTT⁺AGGGCGAATT⁺GGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTGT
TTGTTTTTTTTTTT⁺CACCTTAAGGGAGGATTTAATTTGCTCCCAACTGATTGCACTTAA
ATGAAAATTTAAAAATGAATAAAAGACATACTTCTCAGCTGCAAAATATTATGGAGAATT
GGGGCACCACAGGAATGAAGAGAGAAAGCAGCTCCCTAACTTCAAAACCATT⁺TGGTAG
CTGCCCG

Sequence 1444

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCAGAAACCTGGCCA
GGCTCCCAGGCTCCTCATCTATGGTGCATCCACCAGGGCCACTGNA

Sequence 1445

ATAATTGCGCGCTTGGCNGTAATNCATGGTCATAGCTTGTTTTCCTGTGTTGAAAATTGT
TANTTACGCTCACTAATTTCCAACACAAANCAATTACTGNAGCNCGGGGNAGTCATTAAT
AGTTGGTTAAAAAGNCTCTGNGNGGNTGNCNCTTAAATGGAAGNTGCAGGCCTTAAACN
TCAACCATTTTANATTTGGCNGTTTTGACTGCNTTCAANTNGTCCTCGACNTTTTTTCC
CAAGNTNCCGCGGNAAAAAACCACTTGGTTCCTNTGNCNCCAGTCTTGGTCAATTTTAT
ANTGNAAAATTCNCGGNCCTAACTGACNGTCCGTGNGGGGAAGGAAGGGNTCGGGGT
NTTTGGCCGGTNTATTTNGGGGGGCCNGCCTTACTTTTTCCCGGNCCTTNNCTCCTCGGN
NTTCCAACCTGG

Sequence 1446

Table 1

AGGCCACACAACAAGTAGGTGATGGAGAGTGTGGCGGTGACCTGCCCCG

Sequence 1455

CCGCGGTGGCGGCCGAGGTACCANNGACCTCTAACTCCCCCTGACACAGAGCAATTAGAC
TCCCATACAATGGTATCAATTATACCACTCCATTGGAGGGACTTCCTTTATGTGTCACC
CAGGATACATTGCTCAACTGCAGTTGCCCTGCANTTTGATCCCAAGCATGGNTGAGTTAC
CATAAAAAAATTATGTACCT

Sequence 1456

CCGGGCAGGTACNAGACAGAGTCACCATCACTTGGCGGTCAAGTCAGACGATATCTATGC
ACAGTCTGCGAGCTGAAAACGGACCCTCACTTTTGGCCGGGGGACCAAGCTGAAGATCAA
CNCGNAACCTGTNGTGCTGCNCCAACTCGGTTCTTTAATCATTCCCCGCCANTCTTGAT
GNAGNCACGNTATGAAAAATCCTGGGAACTGGCCCTACTGGTTTGTGTGNGCCATGTC
TTGAAATTAACCTTTCTTATCCCCAANNAAGNAGNGCCTCANAANGNATNNUGCNTTC
TGTGTACCCGNCCTTCTTATGGAAAACCTTAATGTTNGTGTANTACNCCCCCACTGTG
GGTCTTNGTCNAATGNGGTAAAATTTTCC

Sequence 1457

CGGGCAGGTACTTCCTGTGGAACCTCCCTGGAGATGAAGCCATGTTCTGCTGGCGCTCTT
CGTGCTTGCCGTGCACCTCAATCACGTTTCCCGAACCTTGACTTTGAGTTCTCTGGAG
AGAAGTGCTTACCGTCCAGNTTACAGGAGAACCCTGTNCTTTCCATACGCATNTTCT
GAATAGCCCAGTGTTCAATTCCAACCTAGGGTGCCCCNC

Sequence 1458

CCGCGGTGGCGGCCCGCCGGGCAGGTACAGATGTCACCGGCAGCATAGATATCAGGAAGG
GATGTGTGCATATGATCATCCACTTTCAGGCCACCATCTTCCCTAGATCAAACTGTTA
CCATGGAGAAAAGGTTCTACATTTGGTGTAACCTGTANCACTGACAATGAAAGCGCAG
CCATATATCTTTTCATTGGTCAATTCACATAGACAGGCCACATCTCTGTATCGGCTGTA
ACTGACTTATGGTCTCTTGGAAAAGTGAAGGACTTTTCTTCAAAATCTAAACTCATCC
TGAAGGTAGATTTTCTTACTTCACACATAGTTTCAAGGTGAATCTTATGAGAAAACCTCT
TTTGTTCCTTTAAGATTCAAGCCTTCATGCCAAATCTTGG

Sequence 1459

TCGAGGCCGAGGTCTTGCGGATCTGGCGGACCTGCTGGTGCTGCGCATAGGATGTCTTTC
TAATCTGGTTGTTACGTTTCTTAGTGAAACCAACACAGAAAAGTCGGAGCAAAATA

Sequence 1460

CCGGGCAGGTACATAAAATGGCAAGAGTGCATCCTTTAAAGCTTGACATGAGAGACTTG
GAAACAATCTTATTAGAATTGTGAAAATTCTAAGTAGTCAAAAAAATAAAAAAATAA
AAAAGAAAGTCAAGTACGTGCCAAGCATNCTNGTGCGACCGCGAGAGCCCCGGGGAGCGGG
GGCTTGC

Sequence 1461

TAGGGCGNNTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATGAATGTAATTCATAATT
TAAAAGGAAAACATAAACTATTTTGATTTGGGAAAATGAGCCTTAATTTGTTAAACCTA
TACACTGAGAACTAGCCTCAGGCTTAATATTCTCATTGCATTTGCAAGATCTGAGCAAAT
AAGATTAAGTAAACAAATCAATTGTATATATAATTGACCTTTTGTGGAACATGTAGTT
TATAGAAAGTATACTCTAAAGGGAATTTGCCGAAGACCTTTTACTGATTGAACAGTTGTG
CTACAATCAACTTTTCATAGTACCTCGGCCCGCTCTAGAACTAGTGGATCCCCCGGGC
TGCAGGAATTCGATATCAAGCTTTATCGATACCGGTCGACCTCGAGG

Sequence 1462

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCCGGGCAGGTACTCGGATTTTG
AATTCGTGATTTTGGTTTGGTATAACGGTAAAGTGTGTGTGCCCTCTTACCTGTTT
TTTGTCTTGTGGTATGTGTGGTGTGAGCGTGGTATTTGTCTGGAAAAAAGAAAAA
AAAAGTA

Sequence 1463

TTTATTGCTCTTTTGATAGAAACGGGAATTTATTTGCCAGGAAGGATGATCCCATCAT
ACTTCTGCTGGAACCAGCGCATGGCCTCCTCTTTGCTGATTCTGTGTTTGGCCCCAATGC
AGCCTGTCTGCGCTTCTTGCTGCGATGCTGAAACCTGGCCTACCCAGCACCACATNNN
AAGTCCAGGGCCGTTAGATACCAATGCTT

CGGGCAGGTACTTACAAANTGCCCATTTCTNTTCATCTGAAAATGTCCCCGAGCCTTTTG
GAAACAGGNGCAGGGCATNCANANTNTTCCANTTTTATNGAAGCTTGANGNACGGTTNC
AACNANAANNNNCTTAATTTCTACANACATCTTTNTTGGGTNATTTGTTACCGAAGNTCC
TCCTTATTTGAGACCCACCTAGACACCGACCTTGNANATTGGAACAAGTAAGCCCCCTNT
NCNTTCNTACAATTGNAATGGTANCCTGGGAAGAAAGCCTTGGTTNGAATTTTANAACC
CCCTGANTTNATNGTTGNCCCATGGNACCCAGGGGAACCAATTGGGTTTTTTTAANAAA
AAA

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCAACCTCTTGGTCAAACATGGCATG
CCACCATCTTTTTCAAAGCCCAATATTGAAGGTGCCCCAGGGGCTCCTATTGGAATACC
TTCCAGCATGTGCAGTCTTTGCCAAAAAAAAAAAAAAAAAAGTACCTGCCCGGGCGGC

AGGTGTCGACCCACGCGTCCGCAATAATGTTAATCCACACACCAAAGGACGAACCTGA
GCCCTAATAATTGTATCCCTAATTATATNTAATCGGGCTCAACCAACCTTCTAGGGCTTC
TTCCCCATACATTTACCCCTACCACTCANCTATCTATAAACCTAAGCATAGCCATCCCCC
TATGAGCAGGAGCGCGTAATTTCTAGGCTTCCGACACAAACTAAAAAATTTCTTAGCCCACT
TCTTACCGCAAGGAAGACCCCTCTCACTAATTTCCCATACTAATCATCATCGAACTATTC
AAGCCTATTTATTCAACCGATAGCACTAGCCA

AGGTACCGCTTCCCTGAAGAGCTCACCCAGACCTTCATGAGTTGTAACCTCATCAGTGGA
ATGTTCCAGCGAATGGACAACTGAGAAAAGAATGCCTTTGCTAGTGTTATCCTGTTTAG
AAACAACAACAGCAGCTCCATTTCTGGGGTTTGGGTCTTCCGAGGCCAAGATCTTGCCTT
TCTGTGAGTCCAGATTGGCAGGTGGACTATTGAGTCATATACATGTCGGAACTGGGAT
CCTGGTAGCCGAGGAGACTGACCCTCGTTCGAGACCTGCCGGGGCCGGCCCCGCCCCG
CGGGTGGGAGCTCCAGCTTTTGTTC

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTTTTTGGGCANCTAAAATNTAGGATGGNGNNAAGCTTCTTCATTTTGNCAATTAT
ATATAAAAAATNACAAACAACATGAATCNGCATTTCTTGGATGAGATANNTAATAACAAA
CTATTTCTCAATATTTGTATACTAAAACTAGTAAAGGTGNTATGTGTTTCAGTATCTTA
TCTNTTATTTGAACATGGGTTTCTGAAGGAGCCTATNTAATAATATAAATGGTATGTAG
TAAANGAGGCNTGCCTTGGCTGGGACTGCTNTAAAAAAATTACCATAGACCATTGACTA
ANCCACAAAACNTATACTTCTCACANNTCTGGAA

[illegible]

AGGTACTTCAGGGAAATACCACCTCCACAAACGTTGAGCCAATTCAGGGGCTGCCAGTAG
AATCCTAAAGAGTGTATGTCTCCGGTTCATGTGAACACCATCTGCANTCCACACCCCGCTT
TNAGGGACAAATTTNANNGCCATTAAGNGNNAAGAACCATTGCTTCAAGCCAGAAGCTNG
TCCCCCTTTTATCCCATCCCATGTTTCACTACCCCTTTTAAGNCTCTGGAATATG
GGNGACCNAGTGCCGGAATGGGCGCTCNAATTAAGNCTCNACGGGTAAGNGGGCGTGGC

Table 1

TCCTNNNCCCNTTCAAGNGGCNTTATNCTCCNAAGATANANCNCCNAAANTTCTATANG
GGGGGGGCNAATTTAACCGGNCCGNGGCCTTTCNANNTCCCCAACCAACCNTTTTTGG
NCAANCCTTTTCAATTAATAATTTTCCCCCGGTCTAATTGGGCCTTTCCCCGNCCTT
TAAANAATTGGTTAANCCCTT

Sequence 1479

AGGTAGTTAATNTTCGGATGTTCTGAAGCTTGGCTTGAGACCCCCCTCTCCAACACACA
CACACACACACACACACACACACACACACACACACACACGCACACATTATCCAAGCGGAC
GCGTGGGTCGACTCAAGCACCTGCCCGG

Sequence 1480

CCGCGGTGGCGGCCGAGGTA CTGTGGAGCTGTTGGGACTGGGCAGGCGGCAAAAGATCTGC
AACAACATGCTGTTAGCTATTAGTATGATTGGAAGCTGCTGAAGCTATGAATCTTGGAAATC
AGGTTAGGGCTTGACCCAAACTACTGGCTAAAATCCTAAATATGAGCTCAGGACGGTGT
TGGTCAAGTGACACTTATAATCTGTACCTGCCCGGNATNTTAATGAACCGNTGCATGCA
AATCTTNTTACTTCAATCTGTAGGGCATACTTAANTNTGTCTTCCACGGAAAAATGAT
GAGGGGGAGACACTNTCTNAACTTGGGGGACCNGGTGGATGGACG

Sequence 1481

CCGCGGTGGCGGCCGGGATCGCGGAAAGTGATGGCTGTCGTCGCCGGCTCTCTCTCAGGA
CAGGACGTGGGATCATTTGCATATCTTACAATTAAGACAGAATACCACAGATCTTAAC
AAGGTTATTGATACATTGCATCGACATAAAAGTGAATTTTTTGAGAAACAGGAGGAA
GGCGTGGAAGCTGAAAAGAAAGCTATCTCTCTCTTCTAAATTACGGAATGAATTGCAA
ACAGATAAACCATTTATCCCCTTGGTTGAGAAATTTGTTGATACTGATATATGAATCAG
TACCTCGGCCCGCTCTAGAACTAGTGGGATCCCCGGGCCTGCAGGGAATTCGATATCAA
GCCTTATCGCATACCCGTCGACCTTCGAGGGGGGGCCCCGGGTACCCAGCT

Sequence 1482

TACCAGTGGCCCTGGTGGATGCACCATAAATGAGGAGCCTGGGAGCCTGGCCAGGTTTCT
GCTGGTACTGTAAACAACCGGTATTAGAAATTGAGATGTTTTATTTGACTATTTGAGA
GTAACATTGTAGATAATGTTCCAAACCATCATCAAAAATGCAGAGCAAACCTTTTCTGTAT
ATAAACTGTACCTGCCCG

Sequence 1483

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCATNCCTTGTTTTCTGC
TCATTTCTTNCAGCCTGAGGAACAGACGTGAGAAAAAAAAACAACCACCCAGACAACCTC
CCCTTTTAGCTGAGCTGTCTTCTGACCAATCAACAGGGACCAGCCAAAAAAAAAAAAAAAA
AAAAAAAAAGTNCCTGCCCG

Sequence 1484

AGGTACGACGGCGGCAGCCTCACTCTGAATGGACCAAGGCGCCAGCTCCTTGTCAAAGC
CAAAACCTTTGGGCCCAAAGTTTTTGGCATAGCATCCTTTGCAATAGATCTCACCATCCT
TGTCTGCCAGGGTGGTCGACTCGAGGCCTTTGCCACATTGGCACATCGGAAGCAGGACT
TATGCCAGGACTTCCCGGCACNCGATCACCTTCTCCGCTGCATAGACTGCCTGGCTTGCA
TCGCGGGACAGCGCTCAGAGCCGCCGATCTTCTGAAGCAAACCTGGATGCCATTGGGGT
TGGGTGGGTAGCGGGACGCGTTGGGTCG

Sequence 1485

CCGCGGTGGCGGCCGAGGTACGCCCTTCGCAGTTTCCTGCCTGATCCTTCCTCCAGCAAGT
AGGTCACATCAATGGCATTTCCTCAGGGATTTTCAAGGAGATTGAGCAAGATCCGGT
TGAGTCGTTCCCGTTGGTTATGCCGTCGTTCTCAGGGGTACCTGCCCG

Sequence 1486

CGGGCAGGTCGACTCCTATAGGGTCTAGATCACGAGCGGCCGCGCACTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAANACACACACACACACACAC
ACACACNCNCACACACACACACACACACAC

Sequence 1487

Table 1

CCGCGGTGGCGGCCGAGGTA CTGGGAAAAGCCACAGGGAGAAGGAAGGCTCCAGCTGAA
CTTTATAGCAATTTGAACTCAACCAGAAGCCTCCTGACCAGAACTCGATGGGAGGGGTGA
AGCTGGCTTGCAGATTCCACAGGTGGGGAAAGAAGGAAGGCTTTATTTGCTTTCAGCTG
GGAGGTGGGTACCTGCCCG

Sequence 1488

AGGTACAGTGGTTAAATAATTGACTCAATGACAAAAGTGGGATTGAGTCCCAACAGTGT
GGACATGCTTGCTTTGGATTGAATGTTTGTGCTTGCCCCATATCCCAATGTTACAGCCC
TAACCACCAATGTGATGGTATTGAGATTAGGGCCTTGAGTACCTGCCCG

Sequence 1489

[illegible]

Sequence 1490

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACATTTTGTTCACCAAG
TTATCCAAACACCAGTGAGGAAATCTTTGCCCAGGGATTCCAACACCTTAAAGTGGGCT
TTTTTTGTGGGTGGCCTTCTGCCATAGGGAACAGCCTCCGTCTTTTTTACAGCGTTG
GAAACCCCGCGTACCTGCCCGGGCGGGCCGCTCGAATCA

Sequence 1491

ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAATAAGCATATTGC
TTTGGCAATGCATCTCCAGAGCAGGTGACCCTGGCCGTCTGTCTGGGGACACTGACACC
GAGGGTGGCTGTGCCAGTTCATAGGAGGCCCTCAGAGAGCTGTGCAGAGAGTGAAGGAGGGG
AGAAGTAGAGGGATCCAGGCCATGTTGAGACCCAGAGTTCTGCCTCTGGACCCACCC
CCGCGTACGTGCCAAGCATCCTCGTGCGACCGCGAGAGCCCGGGGAGCGGGGGCTTGC

Sequence 1492

CGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGAGCTGGAGACGGCCTGG
GTGCTGGCGAAGCGGAGGCCGGANTAAGAAAGACTGTTAGAAATGCCCTCGGGTAACAC
AGAAGGCTTGAGAGATCCTGACATAAATCCTTGTTTGTGCGGAATCTGATGCTTCCACCAG
ATGCTCGGATGAAAATAACTATGACAGGGAAAGTGTTCCACTTACTTCTTGAGGTACCT
GCCCG

Sequence 1493

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTTCTTCACCTGGG
CCACCCACCGTGATTCTGTCTGGATTCCCTGAGCCAAATACCCATGATGGGATGGTTC
AGTGATGTGGATGGATGGCTATTTGTGAAGGGCCGAAAAGTAGTTTTCTAAGATGGGAG
AGCTGGGCAGTTACTTATACTCTGAAGCCCTTCTCTTCTCTGCTGGGGCTTCCCAGCA
GTTCTAATAGTTCCTTGATTTTCAGATAAGTCATCATGATTGTTAGGAAAAAAGAAAA
AAGAAAGTAGTTTTAGCCTCCTGACTTCTTAAGTCAAGTGAGACTTTTAAATTTAGT
AATAATAGCTCATTATTTTAGGTAGCTATTTGATTATTTAATTTCTTAGCAGCACT
GAAGAAATTCAGAGAAGTTC AATAGAGAGTAAT

Sequence 1494

CTNCTATAGGGCGAAITGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGTGTAAAG
AAGGCCATCTACAATCAAGATTGAGAGTGGCTCTAACAAGTGCCATTTTCTTGTAGC
TTTCATTTCTCAGCCCTTTACAAGATTAAATAGTCTGCAGTTTAATCTCTCCAAAGCTT
TACGGAACAGTGATTTCTGCTCTAAACAAGACAGTGACTCCAGGATTTCTGAAGACTATTGT
GGAAGAAGCATCCATTAAAGGCCAAGCTATAACATCAGAAATGGTGAATGAA

Table 1

Sequence 1495

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGAGGAAGTGAAGTCC
CTATGCTGACCCCAATACTTGCAGAAAGTGATTCTGGCGGCCCTTGATAGTTCACAAGA
GAAGTCGTTTCATTCAAGTTGGTGTAAATCAGCTGGGGAGTAGTGGATGTCTGCAAAAACC
AGAAGCGGCAAAAGCAGGTACCTGCCCG

Sequence 1496

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAACTGGCCTCAT
CCTATATTCACTTTCGGCCCTGGGACCAAAGTGATATCAAACGAAGTGTGGCTGCACCA
TCTGTCTTCATCTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAGTGCCTCTGTTGTG
TGCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACCTGCCCG

Sequence 1497

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGGGAGCTTCTCCTTGCCAGT
TTCTCCCAGCANGGACCCTCTTCTGTTTTGAAAGATGGTCGGCTGCTTTTGTAGGCAC
GCTCAGTCTGAATGTCCGCCATCTTCCCGCCGCTCTAGAACTAGTGGGATCCCCCGGG
CTGCAGGAAT

Sequence 1498

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGATTGCATGCAC
TTAAATGCAGATTATTTTGGAGTTTGAAAAGGGACTATTAATGAAATCTTCTTTTCCCT
CCTTCTCTTTTCCCTTCCCCGCCACTGATTAGTGAGCTGGAGATTGGATCACAGGTA
TAATTCAAGCTTTTTTATGTAGTCATGTAGATCACTAGACTCCTTGGTGTACCTGCCCG

Sequence 1499

ATCATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCCATT
ACTGCAGGAAAAGGTCCCGGAGAGCTAAGCAGTCAAGATGTGTGACTTCACCGAAGACCA
GACCGCAGAGTTCAAGGAGGCCTTCCAGCTGTTTGACCGAACAGGTGATGGCAAGATCCT
GTACGTGCCAAAGCATCCTCGTGCGACCGCGAGAGCCCGGGGAGCGGGGGCTTGC

Sequence 1500

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTATATCAACCAGAGCA
ACATACATGAATAAGCCAGCAGTAAGTGCAAAATATCCACATAGAAACATTTTCAGCATAA
TGACCAATGAAAATTCCTGTTGCCATTCCAAGATACGCCAGCATGGCTGACAATGCATTA
TAAAGGACAGCCTGCTTAACGGTCATGCCAGCCTTTAGTAGAACAGCAAAGTCAACCTAAT
TCATGAGGCAACTCATGACAGAACACAGCAACAGAAGTACCTGCCCGGGCGGCCGCCCGG
CGAGGTACAAGGGATTGATTTAAACAAATTCGAGGACTTGGGTTTGATGCCACCGTGT
CTCTGGGTTGTTTGGATAAAGCAGTTTCACCATTACCAGTCAACCAGGAAGGGGGATT
CCCATCGAAACGTCATCATGTGGCTGGACCATCGA

Sequence 1501

CCGCCCGGGCAGGTACCAACAGAAACCTGGCCAGGGCTCCCAAGGCTTCTTCAATCTTAT
GATGCATCCCGACANGGGCCCACTTGGCATCCCAGCCCAGGTTCAAGTGGGCAGTGGGGT
CTGGGACAGACTTCAA
AAAAAAAAAGCAGCGTAGCAAACCTCGTACACTTTTGGCCAGGGGACCAAGCTGGGAGATCAA
AACGAACCTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGGCAGTTGAA
ATCTGGAATTGGCCTCTGTTGTGTGCTGCTGAATTAACTTTCTATCCCGAGAAGAGGC
CCAAAAGGTACCCTTCGGCCCGCTTCTAGGAATCAGGTGGGATCCCCCGGGCTTCGAG
GGAATTCGATAATCAAGGCTTATTCGNATACCCGTCGACCCCTCGAGGGGGGGGGGCC

Sequence 1502

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGCATTTCGTATTGCGCCGCTA
GAGGTGAAATCTTGGACCGGCGCAAGACGGACCGGAGCGAAGAAAAAAAAAAAAAAAAA
GTACCT

Sequence 1503

CCGCGGTGGCGGCCGAGGTACGCGGGGGTCACTTCCGGCTTCCTTCAGTCCGCTGGTCCC

Table 1

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTGTTTTTTTTTTT
TCACCTTAAGGGAGGATTTAATTTGCTCCCACTGATCGTCACTTAAATGAAAATTTAAA
AATGAATAAAAAGACATACTTCTCAGCTGCAGATATTATGGAGAATTGGGGCACCACAG
GAATGAAGAGAGAAAGCAGCTCCCTACTTCAAAACCATTTTGGGTACCTGCCCG

Sequence 1512

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCCTCTTCACTATGA
AAGTGTGCATGAGTCCCAAGCATCGGATGTCAAACAAGAAGCAAATCACCTGCAAGGATC
GGATGGGCAGCANTCTGTCAAGGAAAGCAAAAAAAAAAAAAAAAAAAAAAGTTCCT

Sequence 1513

AATTGGAGCTCCCCGCGGTGGCGGTGCGAGGTACATCATTTCCAGAGCAGGCACTGGCAGC
GAGATAGGGTTGGAGGAGAAGTAGCGCCGGGACTTCCGGATGGCAAACCTTCTGTGGGT
AGAGATTTCCAGCAATCTTGAGCTTCAGGCCTGGCACAGCTCGAAATAATTCCACTTCG
TCGTCCCCGAACGGCTTGTGGTCCTCCTTCCCAAACATGCTGAGGTAGGCGGCCTTCATG
TAAATGTAGGTGGCCTTTTAAAGTCAGATCATGTCAAGTTCCTTCTGGAAATCTGGTTATA
TTCCATCACACTCAGGAGACATCTCTACAATTTCTTGACACCTGCAGCACTCCAGCCA
CACGACGGCCCCCGGTACCTGCCCG

Sequence 1514

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCGGGGGATTCTTNAGAG
GTCAGCCAAGTCGGTAACATTCTGTGAAGCAGATTAATACAGTAAATCAAACAAACGG
AGGTCTTTGGAAGTGATGCTGGGCCCANGCAGTGAATCAAGAAAAGAGGAGAAAGACC
AAGACCTGNATGTCCTGGACGACCTGACCCAAAAANGGGGCACAAAAGCAGCAGAGCTTC
ACCAGGTGACTGGGGTGGGCTTCTTTTGTCTCATTTAAATGTACCTTGCCCGGGCGGCC
CGCTCTAAGAACTAAGTG

Sequence 1515

CCGCGGTGGCGGCCGNCNACTCATTTACCGGGGACAGGGAGAGGCTCTTCTGCNTGTA
GTGGNTGTGCACAGCCTCATGCATCACGGAGCATGAGAAGACGTTCCCCTGCTGCCACCT
GCTNTTGTNCACGGTGAGCTTGCTATAGAGGAAGAAGGANCCGTNGGAGTCCAGCACGGG
AGGCCNTGGTTCTTTCCGCGTACCTCGGCCGCTCTAGGAAGTANTGGATCCCCCGGGCTG
CACGGAATTNGAATATCAAACCTTATCGATACCTTNCGACCTCCNNN

Sequence 1516

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGCCAGGTACAGCCCACANANG
GCTGATNNGCTTTTGTGNTTNTTCTNNGGAANATANTGATGAGTTCCTCNAAACNCNTTA
ATTTTACCTCTTCCGGGACATCATCCTT

Sequence 1517

CCGCGGTGGCGGCCGAGGTACACTNTTNGTCAGGGGACCAAGCTGGAGATCAAACNAACT
GNNGCTGCACCATCTGNCTTATCTTCCCGCCATCTNANGAGCAGTTGAAANCTGNAACT
GCCTCTGTTGTGTGCCTGCTGAATAACTATCTATCCAAAAAGGCCNAAGTACCTGCCCG
GGCGGGCGGCTCTATANCTANTGGATC

Sequence 1518

CCGCGGTGGCGGCCGAGGTACGCGGGGGGAGGAACTGCTCAGTTAGGACCCAGACGGAAC
CATGGAAGCCCCAGCGCAGCTTCTTCTCCTGCTACTCTGGCTCCCAGATACCACTGG
AGAAATAGTGATGACG

Sequence 1519

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACCTCTGGAG
AAAATAAGTGTGTTAGATAAGACTTGTTTCATGCATGAGTGATGCTGTTAGTGTGAAT
TCAATGTTAATGAATCAATAAAATATATGAAATAAGTGTCTTTAAACAGTAACACAAGG
TTGTATGTTCTCAGTTGACAAAAACATTGTGACCAGAGGCTCACAGGAGTCTTAAGTCTG
CATTTCCCCAGGAGCAATGGCTTAGCATTTACTAATCGAGTATTCCTGGCACTTTATAG
AACATAACTACTGTAATAATGAGAATCAACTGGATATTATAAATCCCCAAATATATATT

Table 1

[illegible]

Table 1

AAAAAGGCCAGCAAAAAGGGCCAGGAACCCGTA

Sequence 1527

GGGCGAATTGGAGCTCNCCGCGGTGGCGGCCCGAGGTCAATATAGGGCAGACAGTTTGCC
TTCAGAAATTCAGAAATGCAGCTTTTGAGGGAGGTGAGCATCATTGGTCTCAGCTACCAT
TTTCCTGCAGGATGTTNATAATAGTTCCTGGCAAAGGAGGTTGCGTATAGGGTCCTACA
AG

Sequence 1528

CCGCGGTGGCGGCCCGCCGGGCAGGTACCAAAATGGTTTTGAAGTTAGGGAGCTGCTTT
CTCTCTTCATTCTGTGGGTGCCCAATTCTCCATAATATTTGCAGCTGAGAAGTATGTC
TTTTTATTCATTTTTAAATTTTCATTTAAGTGACAATCAGTTGGGACAAATTAATCCTC
CCTTAAGGTGAAAAAAAAAAACAACAAAAAAGTACCT

Sequence 1529

[illegible]

Sequence 1530

CTACTATAGGGCGAATTGGAGCTCACCGCGGTGGGCGGCCCCGACATCGCCGCCGAGGGAT
CGTTGGCAAGCCCGGGTGGGAGCGTGGCTGTGTTCTCGTCCCTGGCTGACAACGAAGGGG
AGCTAGTCACTTTTCTGCCACGACGACTCGCGTCCGCCTCTCGCCTGGAGTACCTCGGC
GCTCTAGAACTAGT

Sequence 1531

[illegible]

Sequence 1532

CTATAGGGCGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTATCTTTTTT
TTTTTTGAGATGGAGTCTTGTTTGTGCGCCAGGCTCTGGAGTGCAGTGGCGCTCACTGC
AACCTCTGCCTCCCGGGTTCAGGTTATTCCTCTGCCTCGGCCACCCTAGTAGCTGGGATT
ATAGGCTTGAGCCACTTGCGCCCGGCCAATTTTTATTTTTTAATGGTTGTTATGGACTG
AATGTATCCCTCTAAAATTCATATATTGAATCTCTAATCCCCAATGTGATGACACTAGGA
AGTAAAGCCCTTGGGAGATAATTAGGTTTANATGAGGACATGAGGATGGGATCCTCATGG
TGAAATTAGTACCTGCCCGGGCGGNCGCTCTANAAGTAGTGGGATCCCCCGGGCTGCAGG
GAATTCNATATCAANGCTTTATCGATACNCGTTTCGACCTTCAAGGGGGGG

Sequence 1533

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTCTTCTCATACTGNGAATNGTTC
TTGACTCCTTTNTTGACATTNAGTTTTCANAAATTTNCATCTTTTTNTGGAACATAANGT
GCTGTTCTCTTGACTGCCTGNTGGGCCANCATCCGATTGCCANGNCCANAAACGTAAANN
CTTGNCCAANATGGCCAAGNTACCTNGGC

Sequence 1534

GAGCTCCACCGCGGNGGCGGNTCGTGGCACTCATTTACCCGGAGGCAGGGAGAGGGCTCTT

Table 1

CTGCGTGTAAGTGGTTGTGCAGAGCCTCATGCATCACGGAGCATGAGAAGACGTTCCCTT
GCTGCCACCTGCTCTTGCCACGGTGAGCTTGCTGTAAAGGAAGAANGANCCGTNNNGGA
NTTNCANACACGGGGGAAGGGCGTTGGGTCTTGTTAGATTGAATNCTCCCGCGTGCCNC
ATTTGGCTTCTTCCACCTCCCACCGTGCNATGGTCCTCNTGGGGAATAAGAAAGNNC
CTTNTGGACNCAAGAGCCAAGGGTCAANGGCCNTGAACCCCATGGGCTTTTCTTTGGGT
TCCAAGTCCTCAANTCCNCGGGGGGAATNGNGGGNGNGGCTAGGGNGGNTTGGTTAC
CTCCTCCGNGTCTCCGGCCTTTNTNAGGGAAAACCTTANGGTNTGGGGGNGATTCCNC
CCNNCCCCGGNGNACTTTGGNCCAGTGGGAANAATTTCCNAATTATTTNCAAAAAGGC
CTTTAATCCGAAATANCCCCGGTTCGGNAANNCTTTTGTAGNGGGGGGGG

Sequence 1535

TCATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGGGTTGGGGAG
AACCCGTTTTGATTACAAGCAGATAATTATCTCAGTGAGATGGGGTTAGTTCAAGGAAG
TAAGGAGGGGGGAGGATGTGAGGAAGTTAGAACAACCCAATGCTTATTTGATGGGCTGAA
TAACTATTCCAGGACTGAACTATTTTGTAGCACTGTGAGGTGGCACAGTAATTACCTGC
TTCAAAATCAACTGATACCAACATTTTATCTTTGTATCTTATCTCTGTACCTGCCCC

Sequence 1536

CGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGAAGTT
GATGCCGAGCGCAGATCGCCTGCAGCTTGCTAGCTGTGTGGGCTGGGAGGTCTGGTAGGG
CTGAGCTTGCAAGAGGATCAACATGCCTTTGGCTAGAGATTTACTACATCCGTCCTTGGA
AGAGGAAAAGAAAAACATAAAAAAGAAACGCCTAGTACCTGCCCC

Sequence 1537

ATCTTTTAACTAAANGTAATNGTCACCATAATCTTATAGACAAAGCATTGAGGTTTATTG
AACTAATGCTGAAGGTAGTAAGTGGAGGAGCCAGGATGAGGTGAGAATCTGAGATTNTAA
CCATGCCCTATGCTGTCACCTTCTTACACTNTAAAATACCTCCATGCTCNTGTGGACACCTA
NGAACAANTGAATATTTCTATTCTTGTCCAGAATNTCAAAACATTAAACATGTTANACT
GTATTTTNGNTTACCATAANCCTTTCCAGGAGGAACAAGCACTAAACACAGTCTCTGGCT
TAGGATTTGGATGAACATATTCAAAGCCATCTGCTTCCAGCAATCATAATCATACCCT
TTGCTTTTGGCCACTATCACCAAGATCTCCANTAGTACCTCGGCCGCTCTACAAGTAGTG
GATCC

Sequence 1538

CCGCGGTGGCGGCCCGAGGTACCTATGATAATCATGATGGAGATCTGGGGAGGGGAGAAC
GTGGAAATGTCCTTCCGGGTGTGGCAGTGTGGGGGCCAGCTGGAGATCATCCCTGCTCT
GTCGTAGGCCACGTGTTCCGGACCAAGAGCCCCACACCTTCCCCAAGGGCACTAGTGTC
ATTGCTCGCAATCAANTGCGCCTGGCAAAGGTCTGGATGGACAGCTACAAGAAGATTTTC
TATAGGANAAATCTGCAGGCAGCAAAGATGGCCCAAGAGAAATCCTTCGGTGACATTAN
GAACGACTGCANCTGAGGGAACAACCTGCACTGTCAACATTTTCTGGTACCTGCCCC

Sequence 1539

CGAGGTACGCGGGGCAGGTGATGTTTGTTCACGATGGTCTTCAGATGCCACGTGGGC
ACTGCTGAGAAAGCCACTTGGTAAACTGATGCCGGAATGGGGCTTTTGGGATCCCTG
CTCAGCTGCTTCTGAGTCCCAGCATGCCCTGGTTACCTATGGCCCTCTTCCCATGGGAC
CTGACCTATGATCGCCCCCGCTCCTAGGCGTGGTGACCAAGATGAAGATGCAGAGGACC
ATTGTCATCCGCCGAGACTATCTGCACTACATCCGCAAGTACCTGCCCC

Sequence 1540

GGCCGCCCCGNGCAGGTACAGCATCNCTGGTGGTTTCAAAGAACGTAGTCATTCTTCTCAC
TGCAACANTGTANGATAAGCANGGNAGATCTGTTATTTCAAATTAAGGTGATTAAAT
ATATGGAGAGAGANCATGGCATGTGAGGTTTATAGGGCTAGANACTGNACANCCATGTAC
AACCCANATT

Sequence 1541

TTAACTGGACAGGTCAATTATCTGAGCTGTGTAAATCATTGTCTGGCACTACAGTTGAAT

Table 1

CACCTTGACACTGAGCTCAGGAGCAGCCCATTTAAGAAGCATCTTGTAATAACAAAGTG
ACACCTTCGAGATTACAGTTGCAGCTATGCAAGTCATTCACAGAGTAGCTGAGGGCTCTC
TTCTGAAGGAGGACCCATTACATGAAGGTAGACCTTTCATGTCTTGTTGCCGACGTCCAA
GTCTCTTGCGGTCCAGAAATGCCAGGATGGTTGTTTCAAATGCATTGGGTATGAACTGCA
CCTTGAATCTGCCCTCCCTTTTTCGATTAAACCTTTTCACATAGCTGCTGCTGCTCCT
Sequence 1542
CCGGGCAGGTACGCGGGGGAGACCAAGGGCTAAAGCTGGGAGGTGAGTCTGTCACCTTGA
GCCGGGCGAGCGCTGTGGGCCAAGCAGGGGTTGCAGGGCAGTAGGAGTGCAGACTGAAAA
AATGCAGACCGCCGGGGCATTATTCATTTCTCCAGCTCTGATCCGCTGTTGTACCT
Sequence 1543
CCGCGGTGGCGGCCGAGGTACAGAAGGGCCATGCTGTTACTCTTACACAAGGAGGCA
GCCCTCGAGCCACAGGGTCCAGCTGTTGGCTATAATAGCCTACCGGTCTCTGATGATCAC
CATGTTTCTGGAATTCAAGCCAGGAAGAAGCAGCAATCTGTCTTCTGGATTAAACTGAA
GATCAACCTACTTTCAACTTACTAAGAAAGGGGATCATGGACATTGAAGCATATCTTGAA
AGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGGAAACATTAACTGACATTCTT
CAACACCAGATCCGAGCTGTTCCCTTTGAGAACCTTAACATCCATTGTGGGGATGCCATG
GACTTAGGCTTAGAGGCCATTTTGTATCAAGTTGTGAGAAGAAATCGGGGTGGATGGTGT
CTCCAGGTCAAATCATCTTTCGGTACCTGCCC
Sequence 1544
ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCACGCTGGTTTTGCATCTTC
AGGAGACGCTCGTAGCCCTCGCGCTTCTCCTCGGCCAATTCGCGGAAGAAGTGGCTCACG
CCTTCCAGAGCCACATCATCGCGGTGCAAATAGAAGCCCAGAGAGAGGTAGGTGTAGGAG
GCCTGCAGGTACCAGCTGCCATCTGTCTAGTTAACTTCAGAACACACATACCATAGGGAT
GAAGATAAGAAAGGAATGATTGTGACTCTGGATCAAATGCTNCCAGTTCCTGAAGGTGC
ATGATTTAACTGTGA
Sequence 1545
CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCACCTAACACATTATTA
TGTTTATTAACCTTGAGACCCAGAAATAAATCTTTTCTTTCTTGATTCTTGCTCTTAA
AAATACAAAAAATGTTTTGTTTTGTGTTATTTTGGTTTGTATTGTTGGGGGGCTT
TTTTTAATTGTCAGGATTATGATCTTGCTGTTTTCTTCAATATGTATACAAGGTGATGT
GAAAAGATGACTTTGGGCAGAGGAGTAAGAACAAAGTAGGCTTGNTTCTTCTACTTTGCT
TCAGAACTCAGTTTAAATGCCCAAAAGCCGGGAGAAATCAAAGCCCATGTTTGACCGTTCTC
GTTGCTNCACCTGCATTTTCCCAGGAGAGTGTGACNACTCATGCNAGTCCCCTGAGAAA
AAATAAAATTNAGGGACCATTACTTTCTCCTTTTGTCTTTTAAATAATTTCAAAAA
AACGTTTTAGTCNCAAAGGGGGAACTTTTTTTATGCCTATTACGGGAAAAGGGT
Sequence 1546
NCCGCGGTGGCGGCCGCCCGGGCAGGTACTGCTTCTATAAGAACGTGGTCTGTATATTA
TTGAGCTTTGGTTCGCCTTTGTTAATGGATTTCTGGGCAGATTTATTTGAACGTTGGT
GCATCGGCCTGTACCT
Sequence 1547
CACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACACCTCATTGAGG
ATCTAATGGACCCCTATCTTCAGCATGGGGAACAGGGTATAATGTTCAACACCTTGAAGG
CATGTTACTACCAGATTACGCGTGAGAAGCTTAACTAGGCTGCATAACAGCTTTGAAAAAC
TGGATTATCTACTACAGAGTGTATAACACCATCTGGAGTCTTCCTGTAGTNGGCAAAAA
AAGAACAAGTGTGAAATTTGGAAGGGGACTTTGTGTTATTTNAGGTTGTTAGAATGAGC
CTTACCAATAATAAGAAGCCCTTGAGCCCAGAAAAAGGACTGTTTAGTTTAAAGGGAGG
ATTGAAAGGNAGNGTAAAAAATCANNATTAGACCAGTTNTTGGCCGCTCTAGAACTAGG
TGGGATCCCCCGGGCCTGCAGGGAATTCGATNTCCAAGCTTATTGATTCCGNTCTGAC
CTNCNAGGGGGGGGGGCC

Table 1

CAATTTCCACACAAACATTACCGAGCCGGGAGCATTAAA

Sequence 1555

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCTGAAAAGTGCG
 CCCTACGAAAGGACGGTCGACTCCGGCGGGGCCAGGTGCCAATGGGTCATGTTTGGTTA
 GAAGGTGACAATCTACAGAATTCTACAGATTCCAGGTGCTATGGACCTATTCCATATGGA
 CTAATAAGAGGACGAATCTTCTTAAAGATTTTGGCTTCTGAGTGATTTTGGGATTTTAC
 GTGCCAGCCCTAATGGCCACAGATTTTCTGATGATTAGTAAGCATTATTCTTTGACTT
 GATTATTTGTCTCCTTTTCATGTGAATTTTATTACTTCCCGTTTTAAACCGTGGTACCC
 TTGCCCGGGCGGGNCCGCTTCTANGAAGTTAGGTGGGAATCCCCCCCCCGGGGCTGC
 CAANNGAAATTTTNGNATTATCCAAAGGNCTTTTATTNCGAATTANCCCCGNTCCTNA
 ANCCCTTCTGAAAGGGGGGGGGG

Sequence 1556

CCGCGGTGGCGGCCGAGGTACTTTTTGTTTGTTTTTTTTTTTTTCACCTTAAGGGAGGATT
 TAATTTGCTCCCAACTGATTGTCACTTAAATGAAAATTTAAAAATGAATAAAAAGACATA
 CTTCTCAGCTGCAAAATATTATGGAGAATTGGGGCACCCACAGGAATGAAGAGAGAAAGCA
 GCTCCCCTAACCTCAAAAACCATTTTGGGTACCTGCCCCGGCGGGCnnnnnnnnnnnnnnnn
 nnn
 nnn
 CGGTAAATCATGGGTATAGGCTGTTTTCTTGTGTGAAAATTGTTTATCCCGCTCACAA
 TTT

Sequence 1557

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTCTTTTCAATGTT
 CACAGCTACTTCTCCTTTAAGAGAAGCAGAAAGGCAGTTTTAGGTGTGGTCTGTCTTTAT
 TCCCCCGAACTTGATCAATGTATACAATGCTTACACATTCAAATATGTGCAAGATTCAAC
 AAGGAACACTCTCCACTGCTGTGCTTGAAGTACCTCGGCCCGCTCTAGAAGTAGTnnnnn
 nnn
 nnn
 CGCGCTTGGCGTAATCATG
 GGTATAGCTTGTTCCTGTGTGAAAATTGTTAATCCCGCTTCACAATTTNCAACACAAA
 CATACCGAG

Sequence 1558

CTATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGTCC
 CAGCTCCTGGCTGACTTCTAGTCTTCTGGTTGAAGCTGCGCCTTTAGATGACACGACCCT
 ACCCACCCTGTTTCCAGCGGATGCCCGGGCCTGGAGCCCACAGAATCTTCCAGTCCCT
 GGGTGGGACGAGAAAGGAACCGTTTCAGATTGAGATGGCCCATGGGCACCACCACGCT
 CGCCTTNAAGTTCAGCATGGAGTGATTGCAGCAGTGGATTCTCGGGCCTCAGCTGGGTC
 CTACATTANTGCCCTACGGGTGAACAAGGTGATTGAAGATTAAACCCTTACCTGCTTGGCA
 CCATGTCTGGCCTGTGCAGCAGACTGTTCAAGTACCTGCCCGGGCCGGCCCGCTCTAGAA
 CTAGTGGGATCCCCGGGCTGCAAGGAATTCGAT

Sequence 1559

CCGCGGTGGCGGCCGAGGTACCCATTCCCTTGATGTCTACAATATCACCTTTCTTATAGA
 TTCGCATATATGTGGCCAAAGGAACAACCTCCATGTTTTCTAAAGGCCTAGAGAACATATA
 TCGGGTGCCTCTCCTCTTTCCCTTTGTGTTTCGTCATTTTGGCGAATTACTGGAAAGATGG
 CGGTTCCCCGGCCCGCTCTAGAACTAAGTGGGATCCCCCGGGCTGCAGnnnnnnnnnnnnnn
 nnn
 nnAGTGAGGGTTAATTGCGCCGCTTGGCGTAAATCATGGTCATTAGCTTGTTCCTGTG
 GTGAAAATTNGTTATCCCGCTTCACAAATTCCACACCAACCATTACCGAAGCCCCGGGGAG
 CATTAAAGTNGTTAAAGCCCTGGGGGTGCCC

Sequence 1560

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAATGATAAAACCATTGA

Table 1

[illegible]

Sequence 1561

[illegible]

Sequence 1562

[illegible]

Sequence 1563

CCGCGGTGGCGGCCGAGGTAATAATTAAGTCTTACACCTCCATTGACACCTCGGTT
TGTTTAGCTTTATCTCACTTGGGGAATTTATTCCTGTCTGCTGCATTGTAGGTAGCTGGG
TAGGATATATTTCCACTTGCTTTTTAAATTAAGTCTTACACCTCCATTGACACCTCGGTT
TTTTNGGTTTTCTCCCTATAGTGTTGGGTGGGTGCTAAGACACCAGTCTGACCCCCAGA
AATGGGGAGGTTATTTTCNATCCATCTTTTCTCCATCCTTTCCAAAAACCACATATCTAC
ACAAGAGGAAAAATTTAATACATCTAGGAATTTTTTTTTTAATTACAAGCTATTTAAAGA
GATGAAGTGGGCCAAAGTTTTACA

Sequence 1564

CTACTTAGGGCGAAT TGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAC T GAGCACATAGC
ACCAGAATATTGGAACAGATGCTTCTCCAAAGCCAAGGGTTGCCTTACATTTAGAGTGGG
AAAAGAGGAAAAATGAGTTAGCAGAGGAGCAGCGGGGAGGGGGGTAAATTACAGGACATAA
TTTGCTTCTAAAAATTTTGTTTCGTGTTGTAGTTATATAATTAACTTTTCTATTGTACC
TGCCCGGGCGGC

Sequence 1565

[illegible]

Sequence 1566

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGG
GGGTTCCCAGGATGGTGATCCGTGTATATATTGCATCTTCTCTGGCTCTACAGCGGGAA
GAGATGGATCAAGATGGTGAATAGAAGACTCCACCAATCATCCCCTTACACGAACACC
AATTTAACAACATCTACATGCACACACACAAAAGCTTCATCAATTTAACAACATCTAC

[illegible]

Table 1

[illegible]

Table 1

Sequence 1586

CTACTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTATTTTCT
CAAGAAATACGTTAAGTCCAAC T GCTGAACATACATCTTGAATCTCTGTAGCTGTAGGAT
TTTCAACAGCCTTACTTATGGGGATT CGCCTTCCCTCTGCGATGGTCTTCTATTATTTA
AATAAGCAGGATAGATACAAATAAACCTGTCTGGTCGGCCCCGCTCTAGA ACTAGTGGA
TCCCCCGCTGC AA
AA
TGGGTCATAGCTGTTTTCTGTGTGGA AATTGTTATCCC GCTCACCAATTTCCANCACCA
ACCATTACCGAAGCCCCGGAAGCCATTAAAAGTG TAAAAGCCTGGGG

Sequence 1587

[illegible]

Sequence 1588

[illegible]

Sequence 1589

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCGGGCAGGTACTATCTGTATCA
TTCTGCAAACCTTTTNGGNNAAATNNNNCCCCCTCAACAATTTCTGGGGGATNCTNTTT
NCTGGTTAAATACATGTGG

Sequence 1590

.AGGTACCTAATGAAACCCGCTCTTTGGCCTGTGGCTGAGACGCCATCTGTAGGCGGTGAAA
 TCTTTCCAGCCTATGTGACGAGGGTCATGCCACAGGGTGCGCACCTGAAGGAAAAGGAAA
 AGGAAAGGTTGAAACACAGCTCCTTCAGGTGACAGAACAGATGTCCCATGGTGACCAAGG
 ACCCCAGCCTCCATTGACTGTAAAGAAGTGAACCAAGGCAACAATTAAGATCAACTTTC
 AATCTCCCTCCCTTGTCTAGACTCTCCTAAGCCGTTCAAGAAACCTCTGCTTCTCTGAC
 ACACGGAAAGAATGCTGGGGAAGAGGGTGAGTTTGTTTTTCATTAAAGA

Sequence 1591

[illegible]

Sequence 1592

CTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTACNTGCNCATCAATGT
ATGATGATGACTATTTGGCTTAAATGGGATACAATATTCGACCACGCTCAAGAACCTTNA

Table 1

TGGATGCACCATAGATGAGGAGCCTGGGAGCCTGGCCAGGTTTCTGCTGGTACCTGCCCCG

0

Sequence 1601

AGGTACGCGGGAGATGAAGGTGCGCATCCTCTCCGAGCGTAAGAAGCCTCTGGACATTGA
CTACATGGGGGAGGAACAGCTCCGGGAGAAAGCCCAGGAGCTGTGCGACTGGATCCACCA
GACTGGAAGNTCTGANAAAGTTTCGACCCTNGATGGGCGAAAGCTTGAAAACAGCNNGNAA
ATATTGNAANATCAAACGGTNCCTGGTACCCTGCCCCNNGGCCGTGCCCGCTTTTTAANA
AAACCTTANNNNNGGNANTTCCCCCNCNCGNGGNCTTTGNCCACTGNGAAANTTNCNNA
ATTANATTCTNAAAGCCTTTTAAATNCCGAAATTNCCCCGGTNCNTACCCCNCTTCGCTA
NGNGGGGGGGGGGNGCC

Sequence 1602

GACGGAAAGCTTAGATATGCCAACAACAGCAATTACAAAAATGATGTCATGATCAGAAAA
GAGGCTTATGTGCACAAGAGTGTAATGGAAGAACTGAAGAGAATTATTGATGACAGTGAA
ATTACAAAAGAAGATGATGCTTTGTGGCCTCCCCCTGGATAAGGGGTTGGGCCCCGACAGG
GAGNCTTGAAATTGTAATTTGGGGGATGAAGCACATATCTTTTACCCACCATCAAAAA
ATTAGGGTNTCTCTTTATTGGATGGTAAATCCAGTCCAAAGGGATTCTTGAAGGCCCT
TCGNAGGTATTTTTTACTTATTTTGGGTTACCCTCGNGGCNCGGCTTCTTAGAAACCTAG
GTGGGATTCCCCCGGGGCTGGCAAGGGGAATTTCCGAATANTTNAAGGCTTTATCCG
AATACCCGTTTGAACCTCNAAGGGGGGGGGGGCCCCCGGGTTACCCCNAGCCTTTTTT
GGT

Sequence 1603

ACTATAGGGCGAATTGGAGCTTCNACCGCGGGGGCGGCCCGCCGGNCAGGGTACTCCTTC
GTNATACCCATCTGGGCAGTCCAAGACACCATTGCACAGCTGGGATAAATGAACACATTT
GTTGGTACNCGGGATGATAATGTCCCGATCACCTTCGGCCAAGGGACACGACTGGAGATT
AAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGNTGAAA
TCTGGAAGTGCCTTTGTTGTGTGCCTGCTGAATAACTTNTATCCAGAGAGGCCAAAGTA
CCT

Sequence 1604

GATCNTATAGGGCGAATTGGAGCTTCANNCNCGGGGNCGGCCGCCGGANGNGGGTGACG
TGCGGATCTTNTTCTTTTGTGGCTGTGGACACCTTTCAACACTGCCTTCTTGGCCTTTA
AAGCCTTCGCTTTGGCTTCAGCCTTAGGAGGGGGCAGGAGCTTCCTTCTTCGCTTTCGGCG
CCATCTTGTGAAAAAGCCCCGCGTTACCTCGGGCCCCGCTCTAAGAACTTAGTTGGGATT
CCCCCCCCGGGGCCTTGTGATGGAATTTCCNAATAATCAAAGCCTTTAATTCNAATTAA
CCCGGTTCCNNAACNCTTCTAAANNNGGNGGGGGGGGCCCNCCGNGTAACCTCCNAAGNCT
TTTTTTGGTTTNCNCCCTCTTTAAAGATCGAAAGNNGGGGTTTTAAATTTATAGCCAGCCC
GCCTTTTGGGNCCCCG

Sequence 1605

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGATGGACCCGCTACGG
AACGAGGAGGAGGTTTCGAGTGAAGATCAAAGACTTGAATGAACACATTGTTTGCTGCCTA
TGCGCCCGGCTACTTCGTGGATGCCACCACCATCACAGAGTGCTTCATACTTCTGCAAG
AGTTGTATTGTGAAGTACCTGCCCCG

Sequence 1606

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACTATAGTTACGTTA
TTTCTCACCAGTCACATACTCAAGAATTTTACTCAGACCCATGACTTGACCACAGTG
ATAGCAGAAGCTGGGGTGGGCACAAATGCTTATACACAATATTACAAAAGACGACATTCA
CTGGCTTAGAGAACTGATGAATTTTCATTACTTTTACATTTTATAAGGCTAGCTAACT
TTAACAGTTAACTTTAGATAAATCTACTTACACAGTACCTGCCCCG

Sequence 1607

GGGGGCGGCCGAGGTACCANAACCTTCTATGCACACCTCCCTGAGAGTCTGGGAACCTTCA

Table 1

CCGCTGACCTGTGTGAGATGTTCCACGAGGCATTTATGACACCAAATATGCTGCTGAGT
 TTCATGCCCCGTTTCGTGGCCTCCTACTTAGAATATGCCTTCCGGAAATGTGAACGGGAAA
 ATGGGAAGCAGCGGGCAGCTGGCAGCCCACGCCTTACCCTGGAGTTCTGCAACTATCCTT
 CCAGCATGAGGGACCATATTGATTACCGCTGCTGCCTGCCCCCAGCAACCCACCGTNCCT
 ATCCCACCGCATCTGTGACAACTTCTCGGCTTATGGCTGGTGGCCCCCTGGGACCACAGT
 GTCCTCAGTCTCACGATATTGACCTTATCATTGACACTGATGAGGCTGCGGCAGAGGAC
 AAGCGGCGACGG

Sequence 1608

TGGCCCGAGGTACGCGGGGGAGGAAGGACCTGGTAGTTTTGATGACCGCTGTCCTGTCTA
 GCAGATACTTGACGGTTTACAGAAATTCGGTCCCTGGGTCGTGTTT

Sequence 1609

CGAGGTACTTTTTTTTTTTTTTTGAGTTAAGTGTCTTTTTAATTGAAAAGCTAACTGTC
 CAGTTACATTTCTCCAAAAAACCAAACTGGGTAGTAACTGAGTCTCTAGGCAATATA
 TTTAAACTAAGAGGATTAATAAAGAAAAAGAAAACAAGTCTCAGATTGCAATGGA
 AGGGGAGCCCTGCTACATTACAGGCCTAANTCAAATACAGTGGGTACCTGCCCCGGGGC
 CGGCCCGCTTCTAGAAAACNTAGGTGGGAATCCCCCCCCGGGNGTGCAGGGAAATTTTCG
 GATATTCAAAGCCTTATTGGGATTACCCCGNTCCGAACCTNNGGAAGGGGGGGGGGGG
 CCCCAGGGGTACCCCCCAANGCTTTTTTTTNGTTTCCCCCTTTTAGGGTNGNANGGGGG
 NTTAA

Sequence 1610

CGCTCACTTGCCCCGCTTTCAGTCGGGGAAAACCTGGTCGTGCCAGCTGCATTAATGAA
 ATCGGCCAACGCCGCGGGGAGAAGGCCGGGTTTTGCGGTATTGGGGCGCTTCTTCCCGCT
 TTCTCGCTT

Sequence 1611

GTGTGCCACCGCCACTACCACTGATATGCCGAGACCCACTCCAGCCCCCTTNCNTGGAGTA
 NNGGCCGGNACCCAATTCATAGACATAATTTATCCANATAAGGTGAANTCTCAGTAGGGC
 TTGTTNCNCTCTGAGCCCGCTTCTNAGNNAACCNAAAGNNGGNATTNCCCCCTCCGAGAG
 TCNTGGCAANGGTAAANTTTNCNNATTANNTCCNAAAGCCCTTTAATTCCGGAATAAAC
 NCAAAATTCNGGACNCCTTTNNTAGNGGNGNGAGGGGNGNCTCCCGGGTNTAACACCCAAG
 GACATTTATTTGGATTTCCCCCTTNTATTANGGTTGGAAGNGGGGTNTNAAAATTTTNG
 NCCNGCCCGCCCCCTTTNGNGNCCCGTTTAAAAANCCAAATTGGGGGTCCCAAATTAAG
 CCTTGNTTTTATCCCCTTTGATNGGTTGNAAAAAATTA

Sequence 1612

AGGCTCCCGCCCCCTNACNGAGCATTTACAAAAAAATCGNAACGCTCCAAAGTTCAAG
 GAAGGTTGGGCGAAAAACCCCGACNAGGGACCTATTAAAAAGAATACCCAAGGCCGT
 TTTTCC

Sequence 1613

CGCTTACNCGGATTACNCTGGTCCCGCCTTNTCTCCCTTTCCGGAAAGNCGTGGGCCGCN
 TTTTCTTCATAAGTCATCAACGGCTTGTAAGGGGTATTCTTCAAGTTTCGGTTGGTTAGN
 GTTCGGTTTCCGGNTTCNAAAAGACTGGGGGCCCTTGNTGTTGGCACCGNAAACCCCCC
 CCGNTTTCAGCTCCCGAACNCCTGCGNGCCCCCTTTAATTCGCGGGGTNAAACCTTATT
 NCGTTTCTTTGGAGTTTCCCAAAACCCCGGGTTAANAGGGAANCAACCGNAACTTTTT
 AATTCNGNCCCAACCTTGGGGCCAAGGTCAATGNCCCAACCTTGGGGGTAAAA

Sequence 1614

CCGGGCAGGTACTGGGCTCTGACCACTATTGGTTTTGAGACCACGATGTTGGGAGGGTAT
 GTTTACAGCACTCCAGCCAAAAATACAGCACTGGCATGATTACCTTCTCCTGCAGGTG
 ACCATTGATGGCAGGAACATATTGTCGATGCTGGGTTTGGACCGCTCATACCAAGATGT
 GGCNAGCNCTCTGGAAGTTAATTTCTGGGGNAAAGGGATCANGCCTCAGGTTGCCCTTG
 TGGTCCCTCCCGTTTTGACCGGGAAAAGNANGAANTGGGATTTCTGGGATATTCTANN

Table 1

TTTGTACTTTAGGTTTCTTGAAGGAAGGGACCAAGCCTGCTTTTTGTGCATCATTATATCC
TCACGGCTTAAGGTGTTAAGCCCCTGNTNCAAAAGAAGCCTTGGTTACCAGGGNAAAANG
GCCACCNNTTGTNTTGTCAAAAAATATGAATTGTGGTTGGGGAATTGAAAGGGGGGAA
GNGGGTTAAGGGCCAANAANTGGGGAATGGAAGTTG

Sequence 1630

CTACTAAGGGAATAGCTTGCGGCCGCTTAATTAAAGATCTTTTTTTTTCTTTTTTAAAC
AAAATTCCTATAGAATATAACAATATTAAGAGGGAACTTTAAGTGAACCCCCACTTTTG
GCCATAACTTCTTTTTGTGTCAGCCAGCAAGAGCCAAGAGAACATAACCAGGGTGGTAGG
ATGTAGCTAGATAAGCCTCTTTAAAGGCACAAAGAGGCCACTTCTCAACCAGATTGGCC
AAAGCCCTTGGTTCAATGACCAGATAGGCCAACACGGGTAGTAGTGGGGTCATCAAGCCC
TAAATGCAGCTTTCTGGGCTACCTTCTAGGATGCTCTGGAGCTTGGAAGTGTCCACCTGA
AAGAGGGTTGAGGGAGGCTGGGATGAATACAATATTTGGGTCCACTGGATTTTCTCATA
ACCCTTAGCCCC.

Sequence 1631

GCCTTTTAAAGGGAATNAGCTTGCGGCCGCTTAATTAAAGATCTTTTTTTTTTTTTTT
TTAAGAAGCTGTAATGATAGTAACAAAGAAGTCCAACCTTTATATTGCACAAATNTTAC
TAACCATGTAGCATCTNTGTGCCTGACCAGCCCTGACAGATGAG

Sequence 1632

CCTCCTAAAGGGAATANGCTTGCGGCCGCTTAATTAAAGATCTNTTTTTTTTTTTTTT
TAAACGCACAGAACAACCTTTTGAAGGTGCCAAATTTAAAGATGGTAAAGTAACAGAGAA
GTAACCTGTAACCTAATTGCTATGGCTTCAGAATAACCCAGTCAAAANACTTTCAACATN
NAAAGGAAAAAGGAATTTTAAATTAAGTTGCCCTTTGAAGTTTCAAATATTTTTAAAA
NGGGTCTTGNAAATTTTTTTTTCCCTTACCTTTTAGCNANAGGGGGNAANCAAAATTN
TTAAGNTCCCTAAGAAATTTGNNTACCCAGGGGGGTTGTTATTCNTNCCCCCTTTTTN
TTTCNAAAAAGATAAAATTTTTTGNCAAGGGTTTGGGAACCNTTACCAAAAAAGGGG

Sequence 1633

CCTCCTAAGGGAATAAGCTTGCGGCCGCTTAATTAAAGATCTTTTTTTTTTTTTTTGG
AGATGGAGTTTCAAACAAAAAAGAAAGCAGAATCCACCATCTTCCTCCCTGCTGCAC
ATGCTCTTCTG

Sequence 1634

CCGCTTAATTAAAGATCTTTTTTTTTTTTTTTTTGGTTAATATGAGGTNCAATTT
ATTTGGTCATAAACATATGAGTNTTATATATAACCAGGTGTCATGTGCTNTTTGGCC
CNGTNTTTAANANCAAAAACCTAAACAANATCAACCCATTGCGCNCNAAAAACCCCAA

Sequence 1635

GCTAAATAACCCTCACTAAAGGGAATAAGCTTGCGGCCGCTTAATTAAAGATCTTTTTT
TTTTTTTTTATACTACTTATCACTATTTAAATTATATTTAGGTACTTATTGTTATCT
GCTTCCCCTCTAGGCTTCTGCTCTGCAAGGCCAGAGACGTTGTCTCTCTTCTCATAGC
TCGACCCCCACTGCGGAGAACAAGTGCTCAGCACTTGCTAACATGGCAGAAACAAAGCTG
TCTCCCTCAGTTCTCGTGGCAGCCCTCATTCTAGTTTGACTTCCTATGAAATTACTTTTC
CTAGTTGTCTTGAAGGTCATGTTTGTCTTAAGATGTAGCTCCACCAAGCAGACAGCCCTA
TGTGGGGTTTGGAGGTGAGCAGTGAGAGGTGGTACCCATAAGGAGGAACATCANATCTGC
GGGGGGCAT

Sequence 1636

TACTAAAGGGAATAAGCTTGCGGCCGCTTAATTAAAGATCTTTTTTTTTTTTTTTTT
ACAAGTAGTGATTGTACACTAGCTCAGCTCCACCAAACCTGTTGTTCTCTTTTAT
TTGACATTGTTACAGACTAGTACATATTACAATAAGAGTGCTGGATAAAAACATGAGGT
ACNGAAAGTGGTTCAAAGGATTATAGGGTCATTGCAGNATCATGCTNGACAGTAAAGAA
AATTGTGACTGAGAAAACACTAANTAAAAATACATAAAGAATGTGCATTANTAAAAAAA
AAAAAGGACATTNNAGATNAAGNACNNCAAAAAAACCACAACTCCATTTNCANCAGC

[illegible]

Table 1

GCTCAACTGGGAACCTCTTTGAAGGCTAGGGCCATCAATTACATTTTTTGTTCCTTCCA

Sequence 1651

TCGCGGTGGCGGCCGAGGTACCGTTCCTCCAGTGCCCAGAGATGCTCTCCGCACCAAGCC
ACAGATGTGGAGGAGGCAGGTCTGGACTTCAGGCAGACAAGGAACCTCAGAAAATCCTGG
GGAGAGACAGCACANGGTAAGAGGNTAGGTCAGNAGAAAANTCTNAAGGCTCCCTTTTTTC
AACTTTAGNCACTGTACCATGCCCCGGGGCGGGCNCGTNTCTAGTAACCTAAGTGGAAT
CCCCCGGGCTTGCAAGGNAANTTCNGATTATTCAAAGCNTTATCTGTATTACCGTTTCGT
ACACTTACNAAGGGGGGGGGTGGCCCTGGNTACCCNCAANCCTTTNTGTTTTCNCCCTTN
TTAGATGGAGGGGGTTAAATTTTGNCTGCNGGCCTTTGGGTCCGTAAAAATTNCAAATG
NGGTTNCAATTAAGCCTTGGTTTTTCCACTTGNTGGTTGGAAAAA

Sequence 1652

CCGGGCAGGTACCAGCCAATCCCTTCATTAAATGTATACAGATTTAGTTAAGTAGCATT
AATAGGATTCTTAGAAGTATGCCTCATAGAACTTTTAATACTTAAGGCTTTGTAAAAAC
TATCCATGAAGGGAAAGCTCCTCAGCATAACTGCTCAGGGAAATAGGGCTAAATACTGA
ACATTAATAATTGGTTAAAGGTGCTGTTAGCCGAGCCTCAATGCTTGCTACAAGGATGT
ATGTACCT

Sequence 1653

CCGGGCAGGTACGGGGTCTGCTTAAACTCTTCAGAGGTTACCATCGCTTCAGAAAA
AGATCAATACTCCTGACGTGGCAACCTGTCGAGACTCAGGACCGCTAGGAAATCAGCTCT
TGTTTACCCCTCTATCCATTACACTACGATCCAGCTGGGTTTAGGCATCACTTCCCTCTGA
GCAATCCTCCCTGATGTCATGAGGCAGTGCTGAGTGCCTTCTCTGGACCCTCTGTTTACT
TGCTGTAAATCCTGAACATCTGGAAGGGAGTCGTGTTTCAGCAACATATCTACGCCTTG
CAGCACGGTGCCTGGCCTGCAGCTGGTGTCCGTAAACAGCTGCTGACT

Sequence 1654

AGGTACGCGGGAGTAAATGCAGTACAAATTGTTCTACTGTTTTAAAAAGTTTTCCGCAGA
ACAGTGCATTTATGGCAATGCTATGTTTAAATGAGTTAGGGACATCAAATATATAGTAGTT
CCTTATTTTCAGTTGTGAAAATGAAATGGCTAAAGCAGAAGAGACGTCTATTTTAGTCTT
TTAAAAATGTGTGGGTGGTCTTTTTTCTCAGAAGCCCAAAGCACATGTATATTTGT
TATTTCTCCTTGCTATATTCTGAGACTATACTAAAAACTTTAAGAAAAGGAACAAGAAA
AAGGTAAATTCATGTGTTCCCCACTGCTGTGTCTAGAACCAAGATCACATTA

Sequence 1655

CCGGGCAGGTACCAGCCAATCCCTTCATTAAATGTATACAGATTTAGTTAAGTAGCATT
AATAGGATTCTTAGAAGTATGCCTCATAGAACTTTTAATACTTAAGGCTTTGTAAAAAC
TATCCATGAAGGGAAAGCTCCTCAGCATAACTGCTCAGGGAAATAGGGCTAAATACTGA
ACATTAATAATTGGTTAAAGGTGCTGTTAGCCGAGCCTCAATGCTTGCTACAAGGATGT
ATGTACCT

Sequence 1656

CCGGGCAGGTACCTGGTAATTTACAGAACGTTTCGTTATCAGATTTGATAATTATATATTA
AGGTTGTAAAGAATGTGTATGCCAGAATTATAGGTAGTAGATCCTAGATTCTTAGGAAAA
ATAGTTTCTTTATAATCTTTTGAGTAGTGAATGGTTACTTTTACAATGGTTATGAACTG
GGTCAAGGCAAAAGGGCCACTATATGTCTTCAGTCATCTTTCTATGCCTGAAATCCAGGA
AACAGTGAAAATGGATGTTCCCTGGAACAGCCATTGCGATGCCATATGTTGGTCATTGGT
GTCCTTAAAGTGATCTCAGATAATTGTGTGTCTCCCT

Sequence 1657

TNACCGCGGNGGCGGCCGAGGTACAATTGATATAACAGCTTTGTTGCCACCCCAGGCTTT
TCTGTGATGATGCCATGGGCCACATTCTGATCAAACCTGCACACCCAGAAGGTGAAGTGT
GGCTCCAAGCGAGAAAAATTATTAAGTTTGGCACTTGAAACCCTGCTGTCCAAAAATTCT
GAAAAATCATCCTGAAGTTCAAACCTGTGTAGAACTTCTCCAAGTAGATAGCCACTGGAA
AATGCCTTTGCAAATGACTTGGGACTCACGGTCCGGGACACCTTCAACTCCTTGTGAGC

Table 1

CACTGGCACAGGGATCTCCGACATGGTTCAGCCCGGTGCCTCATACCGCANGCGGGGGCT
TAGAAA

Sequence 1658

TCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTATAGTTGAGAGC
CAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAAACAAAAGAGGGTCTTC
TACTCAGCCTCTACCCCTAATATTTATATCAGAAGCAGAGATTAAGTGTCCCTTACTCATT
CACACGTTAATGGAAGAGAAGGAAGTTTCCTAGAAAAATCCTCCCGCTCCACCCTGCAAA
CTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAACTATTTTGAATTGGT
GGTGTGAGGCTAAATTCCTGCTATTGACAGAATTGAGAATGTGATCAATTCAGAGTA
GCATGCTACAAATTTTGTCCCAATTCAATGGGGAGAA

Sequence 1659

CTCCCCGCGGTGGCGGCCGCCCGGGCAGGTCCCTNTGGTNGTNGCTCAGGAAGCTTTANA
NATATATGGCTATTTAATTTGCAAATAATACTTAGAACTGCAAAAACACGTTACCTGGT
CTTGTTGAGAAAGAAATCATAAGTCCCTGACTTAACTCTCTCAATTGATGAAGTGACC
AGGATTACTCAGAGTGCAGTTATTGGCACCCCGAAGCACCAGAGTCCAGGAAAGATGCT
TATCAATCTTTTGCCATTGGCTTCTACTTGCAGGTGCCTTCTCTACTATTCAATCATATA
CGATCATTGGAAAGACAAATGAACTCAAGAAAAGCAGCGAAACAGTACCTCGGCCGCTCT
AGAACTAGGTGGGATCCCCCGG

Sequence 1660

CCGCGGTGGCGGCCGAGGTNCCCGGGGGATGCTGCCACCTAGGTTACTTGTAGGACCCTA
TACGGCAACCTCCTTTGCCAGGAATTTATAAACATCCTGCAGGAAAATGCAGTGAAG
TAGAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATCAAGAGAAGATGAGAGGAGT
CTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAA
AAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGAGG
TGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACC

Sequence 1661

AGGTACAGTTACAAGTACTGCTGCATAACACTAAAGAAAACATTGTAATTCCTACGCCAGT
AGTGGGGGTAACTGAGAACCAACCTAATTTTACCACAGGGCCCTCTGGAAATAGAGGA
ACTAAATGATGACTGTTTGAAGTGAAGAGGCAGATTCTTAGAACATCACTCCTACTGC
ATTCCTTACCTCCACTCCATACCCCTTCTCTTCACTCAGGTAGGACTGTCTCTGGGAA
TGCATGGACAGCATGCCACAGTTCAGNAGCTTGGGATGTGATCCTGGGAAATGGGGCCTT
AAGATGACCCTTTATGGAAACACCTGGAAT

Sequence 1662

CTTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGCCAGGGTCAGGTCCGTATCGCCA
CCCCAAGCCCGCGGGCGGGCGGCATCCAGTGCCAGTTCGTCGAGGTTGAACGGGATATGCC
GGTAGTCGTCCAGCGACCGCGCACCATTTGCCGCCAGCCAGGTATCCAGTCTTGCTTGT

0

Sequence 1663

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCTGGAAAGATG
AACAGGATTGCAGCAGATAGAGACAGGTAGAAGGAGAGAGATTCCAAGTGAAGGATAAA
GGAGAGGGAAGAGAAGCAAAGAGTGCAACTTCCAAGAAGATTTCTGGTTTCTGGCACTG
GTCATAGATAGCTTGGGAGGAAACAGGCAGAGAGGGTTTTGGAGAAACAGAGCTGCAAAG
CCAAGTTAGATGTTAGGTGAGTTGAAAAATAACTTAGGGCAAAAGCAGAGGGAGGGAGG
TATTTACTCTGAACAGAGATGACAGGGTGGGGGAGGACAGATTGTTTTGAGTAGGCAAAG
GCCANGAGCATGAAGCAAGCTAGGAATTG

Sequence 1664

CCGGGCAGGTACTATTAATTTAATGAGAGGTAACCCATGCACCGGCAGGAAGTTCAAGG
GGACAGAAGGGGCTTGCTCCACTCTGGAGCCCTATCTCCTCTCACCTCCTTCTCTAGT
TTGACATGCGATCTTGCTCTCTCTTTTATAAAGTGCTCCAGGCCCTTTTGATTAGGAT

Table 1

Sequence 1671

GCGTTGGCGCTCACCTGCCCCGCTTTCCAGTGCGGGGAAACCTGGTCGTGCCAGCCTGCA
TTTAATGAAATCCGGGCCAACCGCCGCGGGGGGAGAAGGCCGGTTTTGCCGTTATTGGG
GCCGCCTCTTCCCGC

Sequence 1672

CTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCTGCTGAAAGATTAT
TTCTAACAGGCTTGTAGAGAAACGTCGGTTCATGTAAATTAGAAATTATGGGGCCACTTT
GCCATTCTTCACACCTGCAATGAACAGGTGTTTATCTGCAGTTCTGACTTATCTCTTGAA
CTCCATTTGCATGTTATAGTGGGATGCAGCTGATGCCCTGTCCAGATCTTCTTCAGGCCA
CTACATCTATATATGCATTCATATTCAGTGGCTGTGAAGTGTGGGCTGTTGGTTGACA
GAAGGGAGCTGCATCCTTCTGGGAGGGAAACTGAACTTCAGCTGGATGAAAAGCCCAACC
TGGGTCCCTGGGAGGGTAAAGCATCTTCCAAAATGGACAGGCCTGGCAGGTCAATGGA
CTGGAT

Sequence 1673

CCGCGGTGGCGGCCGAGGTACGCGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACCT
GACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCTATACGGCAACCTCCT
TTGCCAGGAACTATTTATAAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACA
TTTC

Sequence 1674

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAAATATTTA
TAGATATGAGGCTTCACTTTGTGAATTCATACACACACACTTCTTTTAGCAGAAA
TTAATAGAAAGCCAATTCTAAATTAATGTAGGTAATACATAATCTACTCAACTGGATGAA
TACCTTGGTTGCAAGTCTTGTCCCTGAGCGAGCTAAGTGACAACACTCTCAATCTACTGAG
CTTCAGCATCTAGGCAGAGCTCCCAGGACAAGCAGAAGTCACAGGGAACAGGAAGCAGG
AAAAGAGCAGGAAAAGATCCTTTAGTTCCATGTGTAGAAACAAATGCTCAACTGNCTTN
TGTATTGAANCCTTCTGGATGCCTGNCNNTTTTATTTGGTCANTTGGNGGNATAGGAAAA
TCCTTTTTTAGGTTGGGCAGNCCNATTTANAAAAATTTGGGAAACCCCNCCCTTTTTTTN
AAAAAA

Sequence 1675

GTACCAGGCTAGGCAGCTCTGGAGAAAGCAGAAGTGGATAAATAAGGTGTGGACTCACCA
AAGACAGTTCCAAAGTCAATTTCACTCTGACACACTCTCTGTGATCTTCCACAGTCAGCA
CAATGCCTGCCCCCTGCTAGGCCTGATGGATGATCTGATAGAAAACCTGGCTTCAGC

Sequence 1676

CCGCGGTGGCGGCCGAGGTACTGTTGCTGCTTTTCTTGAGTTCATTTGTCTTTCCAATG
ATCGTATATGATTGAATAGTAGAGAAGGCACCTGCAAGTAGAAGCCAATGGCAAAGATT
GATAAGCATCTTTCCTGGACTCTGGTGCTTCGGGGGTGCCAATAACTGCACTCTGAGTAA
TCCTGGTCACTTCATCAATTGAGAGAGTTTAAAGTCAGGGGACTTATGATTTCTTTCTCAA
CAAGACCAGGTGAACGTGTTTTTGCAAGTTCTAAGTATTATTTGCAAATTAATAGCCATA
TATCTCTAAAGCTTCTGAGCAACAACCAAGAGGTACCTGCCCGGGCGGCCGCTCTAGAA
CTAG

Sequence 1677

AGGTACGCGGGACATTGATGGGAGAGATGTGGAGGAAGAGGGAAGAGGTCATTTTCCGTG
AATACAGCTTTTCTTTTACCCTTTAAACATTTTGTCTCCCTTTGTTCTTTTCCAGATT
ACTTCTGTTTGCTTGGGTTCATCTGGCTCTCCATGAATGTCCTGCTTTTCTGGAAAACCT
TCTTGCTGTATAACCAAGGGCCAGAGTATCACTACCTCCACCAGATGTTGGGGCTAGGAT
TGTGTCTAAGCAGAGCCTCAGCATCTGTTCTTAACCTCAACTGCAGCCTTATCCTTTTAC
CCATGTGCCCCGAACACTCTTGGCTTACCTCCGAGGGATCACAGNAAGGTTCCAAGCAGGG
AGAACCAGGGAGATTGTTGGATAAAAGCAGA

Sequence 1678

Table 1

CTACTTAGGGCAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGTAGGGGCC
CTTTGCTGCAAGCTTAGGCCAGTGTGAGCTCCTGAGCCACTCCTGACTCAGTTGGAGGAG
ACTCAGTGTCTCTGCCCCCTGCCTGGTGGAGCTTGGCAGCAAGTCCCAAGTTTTACAGT
GTTGAGACCAAGTGGGCAGCCATCACCATTGAGGGGTGCCCTTTTCTCCCCCTCGAGTC
CAAGTTATAGTATTGCTTACTTCCTACCTGAAATAGTTTATGGGTCATGGGTCTGGCTTA
CATCAAGCCCCATAGCCAGTCTGGTTGCCCCACCTAAGGTCTTGGTGCTCTTTGATAATA
GCCACAGCTAAATGTATTAGTCCTGTCCTAGGGAAATGCATTGATCTTCTNCCCAAAAT
ATATA

Sequence 1679

TTCTCTTACTGATAGTAGGATATTTCTGCTTTAGTTATTGTACCTTAAATATATTTTCA
ATGTTGAAATCCTCACAGCATGTTTGATGAAATCTAGTTTTCAAATTTTCTTAGGTATAT
TTCTGTACGTTGGCATGATAACAAATGCAATAACCCAAAAGACCCCAAAAGCTAGTGTA
ATCCCTTTTGCAATCCAAGCATGAGGATTCATCTTCATGTTGACAGTGCCTGAATGTTCTG
GTAGGCTTTGTCAAGCTTGCATACAATAAATTATATATGTCCCTTTTCTTTAGGGTC

Sequence 1680

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTACAGGGGACCGCCAGGGGCTCGAGAATCG
GTATCCTGAGTCCTCTTGAAGAGCAGTAGAGGTTGTTTCATTAAAGTGCAAACACATTGTT
CTTAATTTGAAAACGTGGGCAGAAACAGAACCCCGAGACTAATTTTCCATTGCTAACT
CTAGATTCTCGGCCACTGGAGTCTGAAGATACTCTCTTTGAGAATGCATATTATTTGCT
CACAGCTAAAACATTTAAGTATCATAGCTGATCAGTGGAGTGAGATTAAGGTTTCTT
TTTTGAATCATCAGCTAGAAGATGTACCCTCGGCCGCTCTAGAACTAGGTGGGATC

Sequence 1681

CCGCGGTGGCGGCCGAGGTACAGCAATGGCACACTCTATCCTAATAATGACATCCTGTAT
AATTTAGTATGCTCTGTATCTCACTTTAAATGTAGCATTAAAGGATGAAGCAGTAGAAAAAT
GAACGCCGGGCCTTTTAATAATGAGGCTCAGGTTTGCTATCTTAATTTAGGAATTAGGA
ATGGGAGGGATGCTAAGGAGACTGTTAAATTTTTAAAAAGTTCTCTCTATGCCTGATAC
AGATGCAAATGCTTGCTCATTACATTCTTTAGCCTTTTTAAACAAGTTTGCTAAAACA
ATCATTCTCTGGCATTAAAGACAGCTTACCTGCCAAGCTTGGACATTTTCTATAACCCAA

Sequence 1682

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTGATTTTAAG
AGAATAAATGTCCAGATTCCCAACTCCTATATGCACTTTTACTAAAATGATTCTGCTTG
AGAATGTGCCTGCAGTGTGAGGGAATGCCGTCTCTTTCTCTTTCCATTTCATTCA
CCCTTTAAAAAGGCAAAGCACACCTCTTCTCATCCTGAGTCTATTCTGGCATATCACCT
TGTGGTGTAAAAACCTCCAGGCACCAAAAGGGACACTTTGAAAATATTAGTGTGATA
AACTTGTGATAGGGCTCCAAATCTTCTCTGCTGTTATATATGATTTCTGTTAAGGAAA
GAAGTGGGATAGAAATACAAAGTTGAGGAGAAAAAGGAAGGGATGTAAAGCTTCTGGAT
TGTCT

Sequence 1683

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGGCTCTTGATA
TATCCTGGCCTTAAGTCTCAGGTTCTCCAACAAAGCTGGCAGCCTGTGGTATGCCTTCTG
GGGCCAGAGAGTGTGGCATGATCCGAGGTCCTGAGTCTCTCTCAATGAGCCCCATCATA
TTGGCTTAACCAAAGCCAGTGGTCTTCAGGA

Sequence 1684

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAGATGAAGAGGC
AAGAAAATTATGCCAAATTACCCTGTTTCCCTTTGTACACTGCCTCCTCGCTGACACCT
TCATTCTCCTGCAACCTTACACTTTGATGATGACTTGCTCTGCTTCCATGGAACCTACTTC
ACTTGGCCTATGGCACAAGGCACCTTCTTCCGGCAACATTGACACCTTGGGAGGGGGCTA
TTTTTGATGCACCTAGTCCATTGCAATCCATTGTCTTGAAGGGCAAGATAGAACTT
TGTTTTATTATCTACACTCACGAAAAACAAATTTTGTGCACCATTCCCAACACTATTCTT

Table 1

TTTTCTTTTTTATTTTAGTAAAAGG

Sequence 1685

GTGGGCCGGGCCCGAAGGTTAACGCCGGGGGAAGCCTACCGGGCNAAATCCCTGGAAACT
TTCCTGGAAGAATGGTTCCTTTGGANTGGTGGCAGGCTTGGGGCCATTTCCCTTTCC
GAACTTTCTTCTCCCANCCCCCTAAGCCTTCCCCAAGAAACCAATTCACCATTAAATCAA
CTTGCCAAAAAAATTAAGGCCAATTTGCCANTAACCATTGGGNNAATCCAAGGGCCCCC
AGGTGTGGGGAAAAAATTGGTTAAAAAGGAAAANGGCCCTTGGNAANGCCTTNNATTGG
GGGGGGTCCAAAAAATTGAAAAGGGGTGGAAATTTCCAANANGGCCCTTGGANAANGG
GAAAAAATTATGNNCAAAAAATTTCCAACCCCTTACCAACCAAGGTTTTNTTTGGGGA
AAGGGAATTGGGGTTTTNGCCAACCCGGAAAAAACCAACCAACNTTTGGGGGGGGGAAAA
ATTTGNGGGGAAGGCCAANAAAAANCCAANGTTTCTTTTTTTGGAAAAATTTANTTCCCGG
NAAACCAACCCTCCCAAAAGGGGGCCTTTGGNTNGGAAAGNAACCCTTAACCCCTTAA
ATTTTGGGTTAAGNAAATTAANTTTTTNGGCCACCCCTTTATTGGGAACCCAATTT
TGGGNTTTNGGGTTTCCCTTGGNAAATTTCCAAAAGGGAAAAATTTTTTGGGNTTNGN
TTGGGGGAANCCGGTTTTTGGGGCCCCCCTTNGTTTTTTGGCCTTTTTTTTAATT
TAAAA

Sequence 1686

TAAAGATACCAGGGCCGTTTTCCCCCTGGAAAGCTCCCTTCGTGCCGCTTCTCCTGGTTC
CGACCCCTTGCCCGCTTTAACCCGGAATACCTGGTTCGCGCTTTTTCTCCCTTTCCGGG
AAAGCCGTTGGGCGGCTTTTTCTTNAATAAGNCTTNAACGCCTGNTAGGGTATTCTTCAA
GTTTNNGGTGGTAAGGGTTCGGTTTCGGCTTCCCAAAGCCTTGGGGCTTGGTGTGGCA
ACGAAAAACCCCTCCGTTTCAAGACCNCGAACCCGGCTTGGNCGGCCNTTNAATTN
CCCGGGTTAAACCTTATTCCGGTCTTTTGGAAAGTTCCCAAACCCCGGGGTNAAGGA
ACAACCGGAACCTTTAATTCCGGCCCCACCTTGGGNCNAGGCNAAGGCCCAAACTTGG
GGNTAAACCAAGGGGAATTTAAGNCAAGTANNCCGGAAGGGGTTAANTGGTTNAGGGGC
CCGGGTTNGNCTTANCAANGAAAGTTTTCTTTGGA

Sequence 1687

ATTGGAGCTCCACCGCGGTGGCAAAGCAGACTTTTTATTTTAAAGGAAAGTCATAAAG
TGAATTTTTTCATGAAAGAAATAGTCTTCATTTAAGAAAGTGTTGCCGTTAAAGGGTTAT
CTTGGCACTAATGATTGGCTTTGGGTGATTTTAAATCTGAGATGTCTGTCATAAAGGAAA
TTATGAGACCATAAAATTGAGCTTCTAATTTTCTGTAAGAATACAGAGGAGAAGGAAGGT
AAACTGTTAAGGGTGAGCTTAAGTAATACACAGATCCTAGATAATCAGTTTGCATTTTG
TGCTAATGTAAGATCACAATGCTTGTGTTGAATTAATGTTTTTTACTGATAAGAAAGA
TTTGAAATGGACAGTTGGAATCAATCAACAATATTTCTTGGGGGTGCATTTCCACTGGAT
GC

Sequence 1688

TGAATCTGCATTTCTTGGATGAGATAGTTAATAACAACTATTTCTCAATATTTGTATAC
TAAAACTAGTGAAGGTGTTATGTGTTTCAGTATCTTATCTTATTTGAACATGGGTTT
CTGAAAGGAGCCTATATAATAATATAAATGGTATGTAGTAAATGAGGCACTGTCTTGGCT
GGGACTGCTATAAAAAAATTACCATAGACCATTGACTAAACCACAAACATATACTTCTCA
CAGTTCTGGAAGTTGGAAGCCAAGATGAGGATGCCAGTATGGCTAGCTTCTAGTGAGGG
GTCCTCTTGCAGGTTGCAGACAGCCGGCTTCTTGGCTCCTCACATGGCAGGAAGAAGGTG
CCGCAAGCCTCTCTGGCCTCTTCTTACCAAGGGGCATTAATTACCTTC

Sequence 1689

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCATGGATAAT
TTAGATGTGACTCTGGACAGAGGGATGGATCAGATGACTTCTTAAGTTATCTTCCAGTTT
AGGAGTTCGTAACTATACTTTCTCCTTTCCAGACTATCCTAGTAAGAAAATTTCTTTTT
AAGACAGAGTAGAACTCTGGAATTCATCAGTTTTGATGTTTCTTAAAGTGAATCTAAGA
TAGTGCTCCTGTATTAAGTTCTGATGTCTGACCATTGTTCAAATAAAGAGTAAATGCAA

Table 1

ATGACAGGAAATTGGCTGTGTTCTGAATCCTATTTTTATTTGGGATAACAATAAGCCTGT
ATGGTCACTGGTGACCTTTTGATTGCTGTTTCTGCAACCTCACACTTGCCTCAGGATTC
TTCTTCCACTTCTTGCACTTTATATTG

Sequence 1690

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAATATAGGCAGACAGGTTTGCCTTCA
GAAATTCAGAAATGCAGCTTTTGAGGGAGGTCAGCATCATTGGTCTCAGCTACCATTTTC
CTGCAGGATGTTTATAAATAGTTCTGGCAAAGGAGGTTGCCCGTATAGGGTCTTACAAG
TAACCTAGGTGGCCCCGCGTACCTGCCCG

Sequence 1691

GAGAAGGCGGGTTTGCNGTTATTTGGGCCGCTCTTCCGNCCTCCTCGCTCACTTGACTC
GCNTGCGCCTCGATTCAATTCGGGCNTGATGGCAGAAGCCGGCTATNCAGCNTCACCTTC
ANAAGGGGCGGNTAAATTACCGGGTNTTATTTCCACCAAGGAAATTCAGNGGGGNATNAA
ACCCCCAGGGGAAAAGTAACCATTTGGTGGAGTCCAATAAAAGGGCNCACNCCAAAAATAG
GGGCCCATGTNNAANACCCCGGGGNAATAAAAAAGNGGCCCGGCCNGTTNTNGGCCTTG
GGGCCCGGTTTTTTTTTT

Sequence 1692

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACATGATGAAGAG
GCAAGAAAATTATGCCAAATTACCTGTTTCCCTTTGTCACACTGCCTCCTCGCTGACAC
CTTCATTCTCCTGCAACCTTACACTTTGATGATGACTTGCTCTGCTTCCATGGAACACT
TCACTTGGCCTATGGCACAAGGCACTTCCTTCCGGCAACATTCCGACCTTGGGAGGGGGC
TATTTTGCATGCACCTAGTCCATTGCAATCCATTGTTCTTGAAGGGCAAGATAGAAAC
TTTGTTTTATTATCTACACTCACGAAAAACAAATTTTGTGCACCATTTCCCAACACNATTC
TTTTTCTTTTTTTATTTTAGTNAAGGNGGAGAAAGCTTTT

Sequence 1693

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGT
TGTGTGCAGCTGCAGCGGATTCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTC
ACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAGGGCCTTAGGATCTACTGGGGG
AGTCCGGAGGAGCAGTCTCTTCTGTCCCGCTGGAACCCATG

Sequence 1694

CGGCCGCCCGGGCAGGTACAAGGGAGACAGCATGCAGGGTGTGTTTCTGAGAGCTTGCTG
AGGTGCTCGGCTCTTAGCATTAAAAATGTGATGTTGGTATATCATCCTGATAGAAAACAC
TGCTTTCCAAATCCTAGTCACTTGGATGGGAGGAAAGTAAGAACAGATTCTTCAACCAC
TACTGATTTGTTATAATTCTCCCCATTGAAATTGGGACAAAATTTGTAACATGCTACTCT
GAAATTGATCACATTCTCAATTCTGTCAATAGCAGAGAATTTAGCCTCAACACCACCAAT
TCAAAATAGTTTAGGTCTTGCCCTGCCTGATTATGTAACAGAAAAGCAT

Sequence 1695

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACGACTCCATCATGCTGAGT
TGTGTGCAGCTGCAGCGGATTCCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGT
TCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCCCTTANGATCTACTGGG
GGAGTCCGGAGGAGCAGTCTCTTCTGTCCCGCTGGAACCCATGGTCCACTTGAA

Sequence 1696

CCGGGCAGGTACGCGGGACAGTTCTCTTTCCCTCCACTAGACTGAGCTCTTCAGAGGAAGA
CTCACTTGGCTGAAACCATGATTTTACTTTAAACACATTGAAAACCTCTACTGGAGTGCA
TTGTGTCTGGTGGGCTTCAACCTTAATTCTTAAGTATGTGAAAACACATCACCTATCTGG
AGGTTTACACTTTCTGCTAATGACTTTATTTTTAAGCCCACCACCCTAACACAACAAATA

Table 1

CTTAAACTTGTCTTCATTTCTTTAGGTCTGGCCCTCATGCATGCATATAATTTATAGA
GTCACTGTTTTGCTCGGTTGCCTCATGCCTCTATATTATTGGGAGGTT

Sequence 1697

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGAGATGGAGTCCCATTCGGTCACC
CAGGCTGGAGTGCAGTGGTGTGATTTTGGCCTACTGCAACCTCCGTCTCCTGAGTTCAAG
CAATTCTCCTGCCTCAGGCTCCCAAATAGCTGGGATTACAGGTGGGCACAACCTACACCCA
GCTAATTTTTGTATCCTTAGTAGAGACGAGGTTATACCATGTTGGTCAGGCTGGTCTCAA
ACTCCTGATCTCAGGTGATCCACCCGCCCTCGGCCTCCCAAATGCTGGGATTACAGGTGT
GAGCCACCATGGCCAGCCGGTTGTTTACTTTTGATAAAGGATAGCCAATGTAGGATTAAG
GAGGATTCGAATCGCAGTCCCCAGGTTGGGAGTTTATCCATCAATAAAGCAAATTACGAT
AACTCATAGTGATAAATATTAACCCAAGCAACAGGAAAATATTTTATTTCCAGTGTTT
CATTGGGCTTCTGAATCATTCTGGACACATGTATATTCCCTGTCTATATTAAGTAGNAT
GTTATTTTCTCACTTTAAAAATTATCCCGTTAATTTTGGATTTATTTGNATTTTGGTA

Sequence 1698

CCGCGGTGGCGGCCGTAGCTTGCAGGGGTGCTATGTGAAGATGGCGGAATTCCTAACGTG
CTTCTGCAAAATTTATGTATTCATCCCCCTCTGCTCTCAGTAGGGTGTACCACCTGCG
GATCCTTTGCTTTCCCGCTGGATACTAACAGCCTTTTTCATAATTGCTAGCACCTATGG
AATTGAGTGTTGAAGTGAACAAACAATAGTCTTTCTCTGTAATGTCAGAGTTATTTATAA
GACGAGGCAGTGTTAGACATAAGAAAGAGCACTGGGCAAAGAATCAGACAACCCAGGATTT
GGTTCCATTCTTTTATTATCAAAGAATAAAAAAAAAAACAATATTATTTAAGATGCAGTC
CCAAGTCTTATAAGGAATTTGAAGGCTTCTGGGATCTAATCTAGGTCATGCCCATTTCTGC
CTTCCCTTGCTGTGTGCCCTGACACAAGCATGGAACATGTATTCACTTACCTTTGCCC
TTGGGAACACTTTGGTGGGGAAAAATGTTGATATAGGTTAGCATTTTATAAACTGTCAA
GTTGTACCT

Sequence 1699

TCTGAGAACTTGGGCTGCGCAGGGAATGCTGGTGTGGGAGAAGCAAGCCAACTGAGCTGA
GCTGCGGCCCTGTTTGTCTTAGCTCTCCAAACTTGCTGTCTATGTCACTTGAAGGAA
TCTGATTCCTTTCTGCAAGGCACTGACAATACCTTACAACAGAGCTGGGAGATAAAATGC
AGAGCTTGTGAAAGTCATCAGAAAGTTGAACACAGATGGTCCCCGGCTTCCCGCGTACCT

Sequence 1700

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGGCCGCGCGGGCAGGTACTGCACTG
TGGTTTTGATTTTCCCTGGTCATTAGTGATGTGAGCATTTTTTCATATGTTTGTGGCC
ATTTGTGTATCTTCTTTTGAGAATTGCTATTTCATATCCTTAGCTCACTTTTGATGAAAT
TGTTTTTTCTTTCTAGTTTGTTTGAGTTCATTGTAGATTTTGGATATTAGTCTGTGAG
ATGCATAGGTTGTGAAGATTTATATCAAAAGTGTAGAGCCTGAGTTTGGTCATGAGGAAA
TATTAGAGAGACCCTGGTTAGTGTTAGCCTAAAAAGTGAAATGCCTAAATACTTAGGATT
GTTAAGGAAATAATAAACCAAAAAACATTGAAAAACAGAGAGCAGCTGCACTAGTGCTGA
GAATTGAATGAATATATCAGAGTTCTTTTAGTGCCCGTGAGATGCTAACCTTTTGACCTA
GGCAGAGTAGAGATATTCCACAGAGCTCATTGGACATTGAGTTTAGACCTCAGAAAGGGC
ATACTGTAGGAAGTAAGGCCACATTCTAATGTAAAGAACTTAACCTTTGACCAGTGGAC
AAAAATTGAAACCAGACCTTATAGAGCAAATGGATAAAATCAACCCGGGTGAA

Sequence 1701

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTCTGGTTGTTGCTCANGAAGCTT
TAGAGATATATGNTATTTAATTTGCAAATAATACTTACAACCTGCAAAAACACGTTACCC
TGGTCTTGTTGAGAAAGAAATCATANGTCCCCTGACTTAACTCTCTCAATTGATGAAGT
GACCAGGATTACTCATAGTGCAGTTATTGGCACCCCCGAAGCACCAGAGTCCAGGAAAGA
TGCTTATCNATCTTTGCCATTGGCTTCTACTTGCANGTGCCTTCTCTACTATTCAATCA
TATACGATCATTGGAAGACAAATGAACCAAGAAAAGCAGCGAACAGTACCTNGGCCGC

Table 1

TCTANAAC TAGTGGATCCC

Sequence 1702

NAGGATACCAGGCGTTTTCCCCCTTGAAGCTCCCTCGTGGCGCATCTCCTGTTCCGACC
CTGCACGCTTACCCGGGATTACNCTGTNCCGCACTTTCTTCCCATTACGGGGTAAAGCCG
ATGGGCCGCTNTTCTCAATAAGTCNTCACCGCCTNGTAAGNGGTANTNCTTCAANGTTTC
NGGNTGGTAAAGGGTTCCGGTTACGGCCTTCCCAAAGACCTGGGGGCCCTTGTTGGTTGGC
CACCGAAACCCCCCCCCCGTTTTCAANACNCCCGNAACCCGGCTTGNCCGGCCCCCTTA
ATTCCCNGGGTTTAAACCTTAATTTTCGGGTCTTTTGAAGGTTCCCAAACCCCCCGG

Sequence 1703

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACTCACTGCGTA
TTTGAAGTTCTTGGGGCACTGTGTAAGTGTAGGAGAAGATAGATGGAGTATCTAATTAA
TCTAAAGATAAAAAATGAATGAGGTAGAATCCATTCAGTAGACTAATAAATAGTTCTTAAG
ATCTATAGGATTTCTCTTTTGGAGTGTGGAGACATAGTGTGGAGACATTTGCTAATGTAG
CCATAAAGATAGACCTATTGTCCATTGCAATGAAAGCAACAAATACTATAACATAAAATA
TTTCCAAATTGGTTTGGGTGAAAATAAGCTTGTTTCCCAATAAATGTCAGATGGCACTTG
TTGTAAGAGGTAACTTGAAGAAATTTAAATTAATATATTATTTCCAGCCAAAAACGTCA
TGCATTTTTAGAAAGTTCACAAAAGTCTGTAAAATATGCACACAAATGTCATCAATTGTA
ATTTATTTCAATAAAGAAAGGTAGCTTATACCACTTGTTGGCCATCAGATTTCTATAGAC
TATGCCTCAAGAAATTATCTAAATCTAAGNGTTAGCAAAATAGTGCTTACATGATTTTT
ATAGTATGAAATCACCTTCAATATACATATTCATATAAGTTGTTAAGCTGGGGCACTG
CTTTACTGAAAAAAAATCTTTCACATTCTCTATTTAGAAAAAGTAAATATCTTAAAGG
GAATGGCTCANCTGGTNAATTTCTACNGAGGGTTAAAAGGAAGGAAAGAAAAAA

Sequence 1704

GGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTC
ACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACC
ACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCA
AATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCT
ATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGATTTTACTCC
CATAACCCAGGCAGAAGTACCTCGGCCGCTCTAAANCTAGNGGGAATCCCCCGGCCCTGN
GGNAATTTCNATNNANGCTTTTTANTNANNCCCNCAACCTTNTNNGGGGGGGGGCCCC

Sequence 1705

CCGGGCAGGTACAAGCTATCAAAGGCGGCAATTTTCTCCTGCAAGACTACGACAAGGATC
CGTTTATTGCAATGGAGATCATAAATAGGTGTCTTAAATTGAATGGACTTGACCATCTCC
CCAGTACTCTGCGTTGTTACCACTGCTTCCCGCGAACTCTGCGTTGTTACCACTGCTTCC
CGCGAACTCTGCGTTGTTACCACTGCTTCCCGCGAACTCTGCGTTGTTACCACTGCTTCC
CGCGAACTCTGCGTTGTTACCACTGCTTCCCGCGAACTCTGCGTTGTTACCACTGCTTCC
CGCGTACCT

Sequence 1706

CGCCCGGGCAGGTACAATGGAACAAGGAGATAAGCAGTGAAAGGCCAAGGGAATGTCTGG
AGTTAGGACTTCAGGTGATTCACAACCTTGGCTGCCACTCACCCGAGACTGCCCAAGCCCA
GATTTCTTCTTCTATAAGAATATTGATTCCTTGCAAATAAGATGAACCTAAATGTGGTCC
AGGAGTCAGCATCTTCTACATGGTACCT

Sequence 1707

GAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTTGCTGCTTTTCTTGAGTTCATT
TGTCTTTCCAATGATCGTATATGATTGAATAGTAGAGAAGGCACCTGCAAGTAGAAGCCA
ATGGCAAAAGATTGATAAGCATCTTCTTGACTCTGGTCTTCCGGGGGTGCCAATAACT
GCACTCTGAGTAATCCTGGTCACTTCATCAATTGAGAGAGTTTAAGTCAGGGGACTTATG
ATTTCTTCTCAACAAGACCAGGTGAACGTGTTTTTGCAGTTCTAAGTATTATTGCAAA

Table 1

TTAAATAGCCATATATCTCTAAAGCTTCCTGAGCAACAACCAGAGGTACCTGCCCG
Sequence 1708
CCGCGGTGGCGGCCGCCGCGGGCAGGTACGCGGGAGGCATGAGCCACTGTGCTCGGCCAAG
ATTCTCTTAAATTCATCTTTTGCTTTTATTTCGCTTACCCTGCTTCAGACTAACTTCT
CACCGTCAATCACAGAATTGGTTGGATAGTTTGCTTTCTTGCTAATTTTGCCTTCTTTCA
CTTGTTCTCTATAAATTGTCCAGACTATCAGATAAAATCCAAATGTTTCATCCTTTGCAA
CTGCTCATATACTGTCTAACTTAGTGAAACAACTGCTTTCATTGTTATTTGTTCTTCAG
AATACTACCTCCTAAGTAAATGGTACCT
Sequence 1709
ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTTCCTCCAGTG
CCCAGAGATGCTCTCCGCACCAAGCCACAGATGTGGAGGAGGCAGATGGCCTGTGAAAC
TGAAGGCAATTTGGAAGGCATTTTAAATTCCGTGGAGCCACTGGAGAAATGTTTACAGG
AATGATGCCTTAAATTCCTCAGTGGTAAGATCTGAGTACCTGCCCG
Sequence 1710
ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCAGAACTTAA
GTATAATAATAAAAAATAAGTATTACAGAACATGGTCAATTATATTAAGTAGATTA
ATTAATGTCCATATATACATTTTGGTGGAAATCAAACATAATGAAACTATTTACAT
AATTAATATTTGTTTATTTTACTTATTAATTTATTGCAGAGATGGGAGTCTTGCTAT
GTTGCCCAGGCTAGTCTCAAACCTCCTGGCCTCAAGTAATCCTCCACCTCAATCCCCAA
AATGCTGGGATTTAGGAACATGCCACTGCACTTTATTAGTGTACCTGTCATAAAGTTA
ATTACTCATAATTTATTTTCAATATATATACACACACACACATACACACCATAGT
AGAATAAATTAATTATTTTCTACAAAAATTATTTTCAATCTTT
Sequence 1711
CCGCGGTGGCGGTGCTGGCGGTCACTTCTCGGCTCATTGCTGCAGGTGCTGATCCCCGAG
ACTGGCTGTTGCGCCTGTTTGGTCCGCGCCGCTGGGTTCCACCCTGCGTGGCGGGCTAT
TCGCCTTGCCGGGGATGATGTGCAGTTGCTGCGCCGCTCCGGTGGCGGCCGGTATGCGTC
GGCAGAAGGTCTCGGTGGGCGCGCGCTTGGCGTTCTGGATTGCCAACCCGGTACTGAACC
CGGCGACACTGGTGTTCATGGGCTTTGTGCTGGGCTGGGGCTTTACCGCGCTGCGGTTGG
TGGCCGGGATCGTGCTGGTAGTGGGTGTTTCGCTAGTGGCGCAACGCATCGC
Sequence 1712
CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGGCAGGTACGCGGGAGATAT
TTGCTGAACTCATAAGTTTATTTGGGTAACAAGAGTCAAAATGATATTGGTTAGCAAATA
AAAATTCAGGATACATATTCAAAAATGCTGTTTATGTAATTAATTTGGTGAAGTCTGTC
AAAAAACCCANCTAGNTGCTTGTGGGCCNNGTTGACTGCTGTGGTAAATTAAGTGATGCC
CTAGCAAACATAAGACAGTGTCTATGCCCTTCCAAAAGGCCAGAGAGAGCTTCAGGAGAGA
ATAGGTCCATCCTCATGTAGCCGGGAGAAATTGCAGAATGAAATTGCTCCAGTATTACTA
GTAAACCTTCAAATTTCACTTACTGGGGCAGAGATAGTTCCGGTTTTAAGGAAATAATAG
AAAATCATGGTCTGAAAATTCTCAAACCTGAAAG
Sequence 1713
ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGCGGGCAGGTACCAAAA
GAATGTTATAGCAGCATTATTTGTCATAGTCAAGAGCTGGAAGCAACCCAGTTGTACAT
CAATGGTAGAATGGATGACTAAATTGTAGTGTATTCTTACAATAAAATACTATAGAGCAA
TGAAAATAAATAAACTATGGCTTATATGCAACAACATGGATAAATCTTACCAACAATGT
TANGACAAATGTAGCCAAACCAAAAAATACACATGTTCTATGAATCCATATATGCAAGGT
TCACAATAGGTGATAGTAGCTACTCTTTTGGGAAGGAGTGAGGAAAGGACTGAGAGAGTA
TTGCAGAGGGGGCTNCGGTTGTTTGTAAATTTCTATTTCCAGTGCAGGTGTGGTTTGCAT
GAGCATGTTACCTTTGTGGAAATTC
Sequence 1714
TCGACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGGCGTCACGCCACCCGAG

Table 1

CCGGACTGGCTGCTGATGGATTATGCCGACCTGGTCAGTTCGGAAGCCTTCCGCGGCACC
GCCTTTGCCGCCGCCGTGCGCCAGCAGCTCGACACGCTCGAGCGCGAGCACCCGGGGCGC
GGCGTGAGCAAGCGATCGACATGCTGCTGNCCGTGTTTGGCGCGGCGCTGCAAAACCAG
GGCGGCACGGCCCTGTTCTCGATGGACGCCTGCTGACGGAATTCCTGGAAACACCGACC
ACCA

Sequence 1715

TGGAGCTCCCCGCGGTGGCGGCCGCCGGGCACGGTACACCCTAGCTCCAGCTTCCCCTG
GGAGACTGTGCATCTCCTGGCTCCACTAACACCACCTTCTTCTGACCTTCCAGCCTAGAG
ATGATGACTCTGCCAGCCTAGATGGGCTCTGGGTTGTCTCCCTATTCTGNTTGCTTTGN
AGAATNTCCATTATGCTGNCACCAACTCCCCAGCCTAAGCCCTCTCTATTTTAAATTCT
CAAGTGATTATGTTCTGATTAGTCCCTGACTGATATACCACTCTCCTCATGATCTCTG
ATTAGTTTTCTGTAGGTTGTTGCANTCNAAAAAAAAAAAAAAAAAAAGTGCCTT

Sequence 1716

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCGCCGGGCAGGTACCTCTCCC
CTGACCTCCTTTGGCTAAAGTGCCTTTCAGATTTTATTACTATTGTTAACATTTCCAACA
GCCATTTTAACATTATTTTACAAATTTGATGTGAATATTCATATTAGAAATATGATTT
CAGAAGACAAAGAATTTGTTTGTGAAATGCTAAGGACTGAAGCTGACAGAAATAACATT
CCTGCTTACAATGAACCTTTGCACGTATAGTAGAAAACCAGGAGCGTCTCAATGTGCTC
CTTACCCCTATTGGCTGCATCTCCATGAGCCCTGAGAAGGGAAATTAACACTACCTGCA
GAGGAGACAAGAGGCACCTGAGGACCCAGGAGGACCCACAATAAGTTGCTAAAATGAAAC
ATCTGTTACATTTGTGTTAATTAGTAATATGTCTT

Sequence 1717

NATGCTCTCCGCACCAAGCCACAGATGTGGAGGAGGCAGGTAGGGGGTCAAAGAGGGGTG
GTATCGGTTATTCAGGACTTTTTTTTTTTTTTTCTTAAATATCCTGTGCTTCTTCAATCA
TTTGAAGGTAAACCAGGTCTGTGAGTGGTAACTGATTTTTGGTTCTTATGAGGGTAT
TATTTCTGTGTAGATATTTGTTAACTTGGTGTCTTGCAGGGTAAACGATCATCNAANC
TTTNTGTTCCACCATNTTGCTCCTCTCATTTTAGACCTAATATATTGACTATAANNGTTT
CCCTCTGGAAGTATTGACTATTNTTTTGCATCAATACTAAAGAAAATAAAATATAATNAT
AGAGACTNAAACATATTAATATATATATAATGGGTGTTAACTAAATGGNTAATTTGAA

Sequence 1718

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTACAGGG
GACCCGCCAGGGGCCTCGAGAATCGGTATCCTGAGTCCTCCTGAAGAGCAGTAGAGGTTG
TTTCATTAAGTGCAAACACATTGTTCTTAATTTGAAAACCTGTGGGCAGAAACAGAAAGCCC
GAGACTAATTTTCCATTGCTAACTCTAGATTCTCGGCCACTGGAGTCTGAAGATACTCT
CTTTGAGAATGCATATTATTTTGCTCACAGCTAAACATTTAAGTATCATAGCTGATCAG
TGGAGTGAGATTAAGGTTTCTTTTTTGAATCATCAGCTAGAGATGTACCT

Sequence 1719

CCGCGGTGGCGGCCGCCGGGCAGGTACACACTCTGGATAATTAACGGCAGAAAGATAAA
CTGTATTTCTGCACATCTTCACTGCACTGCGAGCCCCAACACAGCACACACCTGCACCC
TCCCTGCCTTCTCACATAAAGCCCAGAGGGAACACCGGGCACCTTGGTGTCTTCTCAGAT
GCCCCTGGAGCGTTTACACCAATGCAATAACAGAAGTTTTGATTTTCCAGATAAACAAA
TGGATTGTTTACAGCTACAGAAGCCCCCTTACAGAGCTGCCAAATTTCTGTCTCATCCA
CCAACCTGCCTAGAAGAGAGAAGCTAGTGCCCTCTGCAAAACCTCCACACTAGGGGGCT
GGTATAAGGGATGAAAAC TAGGGGAGTCTCTTTAAGGGTGATCTTCTGCCAAAATGAC
TTTACTTTTCCCTGAACCATAATC

Sequence 1720

GAGCTCCCCGCGGNGGCGGCCCGAGGTACACTTTCAAGACCAAAATGTAAATTTACAAAT
GTGTCTCAGTAAGAAAAGTTACAGAAGCTGGGCCGGGCGCAGTGAGTCTATGCCTGTAATC
CCAGCACTTTGGGAGGCTGAGGTGGGTGGATCACTTGAGGTCAGGAGTTCGAAACCAGCC

Table 1

TGGCCAACGTGGNGAAAACCTGTCTCTACTAAAAATACAAAACTAGCCCGGGAGTGG
TGGCGCACACCTCTAATCCCAGCTACTCAAGAGGCTGAGGTAGGAGAATCGCTGGAACCC
GGGAGGCGGAGGCTGCAGTGAGCCAAGATCGTGCCACTGCACTCCAGCCTGGGTGACAGA
GCAAGACTCTGGTAATACAGTCAAGCTGCTCCTGTGAGATGTATACTTCTGAATGAGCA
CTATAATGGATGCTGCTCAGGTTTCATCTATTTCAGTAAGGTTGGAGCCTACTATATGCCAG
GCAC

Sequence 1721

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCAGAACTTAA
GTATAATAATAAAAAATAAGTATTACAGAACATGGTCAATTATATTAAGTAGATTA
ATTAATGTCCATATACATTTTTTGGTGAAATCAAACATAATGAAACTATTTACAT
AATTAATATTTTGTATTTTTTACTTATTAATTNATTGCAGAGATGGGAGGTCTTGCTA
TGTTGCCCAGGCTAGTCTCAAACCTGCGCTCAAGTAATCCTCCACCTCAATCCCCCA
AATGCTGGGATTTAGGAACATGCCACTGCACTTTATTAGTGTTACCTGTCATAAAGTT
AATTACTCATAATTTTATTTTCAAGTATATATACACACACACACCATACACCATAG
TAGAATAAATTAATTATATTTTCTACAAAAATTATTTTCAATCTTTTT

Sequence 1722

ACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGATTAGTTNAA
TATAAAGACTCCGTAATTTTACAATTTTACAATAATTTTATTTCTTCAAGCTTGTTAG
NTNGGGATTGNATTAAGTACAGTGTGTGACTTANAAATGATAATGCTGCTTATGGA
AAATGGATTATAGGTGGGTAAGACTTTCNTTTGCAAAAATTTGGGNAATTACCCATCAGT
NGTTAGGAACCCAGNTGAAGTCTANANGACAGATGATAGTATCTTATACTAGGTTGGGT

Sequence 1723

CACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTCAGCCATTCGGCGAACTG
CGCTTCGGTCTCTTGCGAAATGGCATCGTAGCGCACGCACTGGAAATACGTGCCGTGGC
CGGCAGCAGGCTGAAGCGGCTGCCGCCAGGCCGTCGCGGAACAGGTGCGCTTGCGCTG
GTAAACGCGGGCAAAGTCCAAGGTAGGGCTTGCGGCTTGCCATGTAGCCCGGCAATGC
CGTGCTGCATCGGCGTGTGACGGTAAACACGTTGTACTGGTGCACCTTGCGAAATCCG
CCGTCAGGGCTGCGGGCGCCGCTACATAGCCAACCTTCCAGCCCGTCTTTGCGCAATGGT
GAGTAGTTGACCCATGGACGTATGCTAGAAGCCGCATGGATGCAGGCTTTCAGATGTTG
ATCAATGTCCATGGGAAAGTCCCGATTGACGCTCTT

Sequence 1724

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACATTTTCTTGATTCC
TACAATCTATTCTTCTACAACAGCAACAGTAATTGTTTGAAATTATACATAAGACTTCA
TCACTATTTTGTCAAATTTCTTAGGATTCTTCCCAATACTTTTAGGATAGGGCTCAATT
GCTTTATCATTGACTGCAAGGGCCCTGTGTCTCTGAACCTGCATACCTATCCAAGTTTA
TCTCCAACACTATCCCACTGTATTACCCTACTCTGTCTACAAAGTCTTTTCTGTTCTTG
AACAAACAAAATTTATTCTTACCTGAGGGTCTTGATCCACACTCAGACCTTACTTGGT
TTAGTTTTCAGAAAGGCCACCAAGGGACCATCTATTTAAACAGTCCCCATGTTAGAT
CCCACTCCGTCACCTTTTCTAGTGAGTTTTCACCA

Sequence 1725

GTNGGAGCGGCCCGCCGGGCAGGTTCTGAGTCAAGGACTTCTTTAACGTCATNNACGGCT
CCTAGGACAGCCACAGAAAAAATGGGGTAAAGGGGTAGGAAGAAAAAGGAAGGGAAG
AGAGCCAGGGAATTGGGGAAGGAGAGGTAGGGGAAGGGGAAGGGG

Sequence 1726

CCGCGGTGGCGGCCCGCCGGGCAGGTACATGCCAGGCACAAGCTGGAGTCACAGATGCCA
CACTGACTATCACATTGTCATCACTCAGAGAGAGAAAGGTGTATACCCAGTATTTT
CTTATGTTTTCTCTATACTTCCATATCCCCACCCCATTTATCCCCGAGACATTTCCAG
TTGGGAAGTCAGTTGCTTATGGGAACTGGCTGCAGGGGGATCAGCCACCTGTAACACA

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Table 1

CGGAAAGGCAGAGAAACAATGAGTCATGGATTGAGTGCAAACAAGCCCAGTCCTGCTAC
AGAGAGTTACGGAAAAATCTCACTGTTGAAGAGAGACATCTATAAGAGAGGTGAGGAAAA
TGA CTGATAGATCCTTTTACAATATTCTAGGGGTAGTCTGTCTGTGGGAGGGGGCAGGAG
TCTATGGGGAACCTCTCT

Sequence 1727

CCGCGGTGGCGGCCGAGGTACGCGGGGGATTTTGTAAAGTTTGGCATGTTGGCCAGG
CTGATCTTGAACCTCCTGCCCTCAAGTGATCTGCCACCTTGACCTCCCAAAGTGCTGGGA
TTACAGGTGTGAGCTACTGTGCTCAGCTCAGCCATGGAACAATCTTGATGGATAAATTTA
ATCTGCAGGTATCTCCATCTCTATTTGCCACTCTTAGTAAATGTTTTAGTTTGACAGTAA
ACGAGTTGAGACATTAATGATTGAGAGAGCACCTAAGCAGCTCGAAGTGCTGGGAGTCTC
TCCTAAAGAATTAGATGCACACAGCATTTTCCCTTACAGACACTTCACTGAAGCAGTCA
TGTTGGACTTGGGTGGCGTCTGCTATTAGACACACTATTCACCAATAAAACCCTGAAAAAT
TGCATTGCACAG

Sequence 1728

CCGCGGTGGCGGCCGAGGTACTATTAAATTTAATGAGAGGTAACCCATGCACCGGCAGGA
AGTTCAAGGGGACAGAAGGGGCTTGCTCCACTCTGGAGCCCTATCTCCTCTCACCTCCTT
CCTTCTAGTTTGACATGCGATCTTGCTCTCTCTTTTATAAAGTGCTTCCAGGCCCTTT
GGATTAGGATGCTGTCTAAATCCTTCTAAAGAGAGGTTTTGGAGCCACCAACACTGCT
TCACTGTGGAATAAACTTTCTTATTAAGATTCTTCATTCACTCATAATCATCTCCTTTT
TCCTCACTGCTCATTCAATTTATGGAGATAGCACCCATATCATAGCTACTTGGTCAAATCA
TGGTGATACTCCCCACTTAGGAGAGGAAGATGACTAGGTTATAAGCTCTTGCCCTTAGGA
AATTA AAAACCCTGTGGGT

Sequence 1729

CCGCGGTGGCGGCTGGATTCTTGACATTCATTAATATCTTGACAACCTCAGCCCATCAGAG
GTTCTTCGAAAGCCACTTCCACAACGGACCACACAGCGATAAGATCCAATCGTATTGTCA
CAGTCTTGACCAGCGTGGCAGGTATGCCTACCCAAAGCACACTCATCAATATCTTNGACA
AGTTCTTCCATCTGCAGCTATGGTGAGGCCTTTAGGGCAGGAGCAGTAGTAAGTCCCAT
GGCATTGTGGCAGCTATGGGAGCAGGGATTCCCTGCTGCACATTCATCCTCATCAGCACA
AAAAGGTCCAACCTGAGTCTAAGGTAAACCCGAGGGGCACTGATTCTGGCGATCTCCTT
GGATATTGAAGCATTGAATTTT

Sequence 1730

TCACTCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCAGGTTCAAATA
GTCAGCAGCTCATCATAATCAATGAGCGAGGACATAAAGTAGGAAAAATGCATCACCATG
GTGAGCAAGGAAAGCAAGTTATTGGAGGCACATGTTAACACATAAAATATAAAATTAATA
TGATCACACTGGAAAGGCTTGCTGAGCCACAGTTTGAATGCCTACAATAAGATGAGAT
GCACAACANAAAGCAAGAGAACCTGATCAAGTGGTGACCTGGCCATGGGTGCTCTCATC
AGTGGGGGGACCCAAATGCTTATGTGGGACTCACCAGGTATCGAATTTANCCATTGATTA
GGGAGTGGTTTTGGTTGGTGGNTGGGCNAGGAAAACTTTTNTTAATTCCAAATTGGAAAT
ACCAATTNGAAAACCTTTTAAAAAAATTAATTTGNTNAGGANTTCTTTTACCACCCAA
GGCCCAAATTNGTCAATNTTTGGCCGTTACCCTTGCCC

Sequence 1731

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCGGCAGGTACTGTTTCTTTAA
AAAGATTTGTATCTTGCTAGGTAATTAACAATGTTTACAATTAATATATTATATTTAA
ATAGAGACAGGGTCTTGCTGTATAGCCAGGCATTCTTGAACCTCTGGCCTCAAGCAATC
TTCTTGCCCTTGCCCTTTCCAAAGTGCTAGGATTACAGGGTGTGAGCCAGTGTGCCCGGCC
CAATTAATACCATCTAAGTCATTGTCTAAGGAACTTTTCGTTTCTGTTTGTGGGGCC
AGACTTTGGGAAGAAAGTATGTTTGATAAGAAATTTATCAGATAACCCCTTTTTTTTTTG
TAATATCTCTTTGGGATAGCATTGTCTTCTCTGCTTTGGGGAAGTCTTTTGGTTACTC
ATTACTCAAAATTTGCCAAATTTAGGGGTGGGTGGTGAATTTTGGC

Table 1

Sequence 1732

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGATTTTTA
GTAAAGTTTTGCCATGTTGGCCAGGCTGATCTTGAACCTCGCCCTCAAGTGATCTGCC
ACCTTGACCTCCCAAAGTGCTGGGATTACAGGTGTGAGCTACTGTGCTCAGCTCAGCCAT
GGAACAATCTTGATGGNTTAATTAATCTGCAGGTATCTCCATCTCTATTTGCCACTCTTA
GTAAATGTTTGTAGTTTGACAGTAAACGAGTTGAGACATTAATGATTGAGAGAGCACCTAA
GCAGCTCGAAGTGCTGGGAGTCTCTCCTAAAGAATTAAGATGCACACAGCATTTTCCCT
TACAGACACTTCAGTACGAGTCATGTTGGACTTGGGTGGCCGTCTGCTATTAGACACAC
TATTCACCAATAAAAACCCCTGAAAATTGCATTGCACAGGACTG

Sequence 1733

CCGGGCAGGTACATGAAGGAGGGCACTANGGGGAGCTAANCAATTTGTGAGTTAGGTAGC
CAAGATTCGTTGAGGTTGGAAGAATGAGGAAAGAAAGGGGATCTGTGGCAAAAATATGCT

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Sequence 1734

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCATACTACTTTAAGT
TACCTCCTATTGGGGGCATTATAAATGGGTAAGCAGAGAACATCATGGAAGACATGGAG
CTTAGTATATGCAAATGTTGAGTTACTCAGTGTAATGTGTGAAAAAGGAGTTTCATAAGT
TTCCGTCAGGGAAAGAAAGGCAGGGTCAAAAATTTCTGCTTGAGAAGTTTGGGGAGCTT
GGGGAGACTTTAAACAGGGAGCAACACAGCGCCTCTGTACCTGCCCCG

Sequence 1735

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCATACTACTTTAA
GTTACCTCCTATTGGGGGCATTATAAATGGGTAAGCAGAGAACATCATGGAAGACATGG
AGCTTAGTATATGCAAATGTTGAGTTACTCAGTGTAATGTGTGAAAAAGGAGTTTCATAA
GTTTCGTCAGGGAAAGAAAGGCAGGGTCAAAAATTTCTGCTTGAGAAGTTTNGGGAG
CTTGGGGAAGACTTTAAACAGGGAGCAACACAGCGCCTCTGTACCTGCCCCG

Sequence 1736

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGACAGTTTTGAGCACCTGCCTT
GTGCCTCAATGAATACTTGTGGGTGATGAATGATATAAAATTCATCTTGACATTCAGCT
TAGGTTTGGAGACAGTGTATGATTTCTTACCATGGCCTTGACTCATCTTCTGAATGGT
CAGGCTAAGTGCTGCCTCCTTCTCTGTGTAGCCTATTCAGGCACCTGCTCACCTACCACA
ACCTGCCAGGCCCTCCAGCTCTGGAAGCATGCTATGTGAGAAATAATCCTAATATCCAA
GTCACAGACAGTGGGTGGGCTTGGAAAGTGCAGGGCCTGTGATCCCTTTGTGGAGTAGCTG
AATTTAAGAAGTTGACAGCAATTGTGTTCTATAATGAGAATGGTCCTGATCATCATGGAG
GAATAATAGCTGCCTTTTATTGAGAACTGTCAGGTACCTGCCCCG

Sequence 1737

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATCAAACATCTTGT
TATACTTTGTAAACATTTTCTTTTTTAAACCCAGTTCAGCCGGACGCCCCAGACCT
CTGAGGTTTCGAGGAGGTGGTGGTTTTCATTTGGGGCTTTGCATATTTGGTTGTTAGGTTT
TGCGAGANCTTTTTNATTTNGCCCAGACGTCTTNATGCCGNGGTTGAAANTTNCACTTC
GGGCNCCCCTCCCCTGGAGNTCTTTGTGTGCCGCGNGGAANTTCAGTGGAAGATCCGGTT
TACTNAGCGATATAGGAGGGATNTATANCTNNNNANTTCNNNNNTTAANTNTATTTGTC
CTTGCCCGGNGCGNGCACNCNTNNACTGCCCCGCTT

Sequence 1738

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATCAAACATCTTGTATACTTT
GTAAACATTTTCTTTTTTAAACCCAGTTCAGCCGGACGCCCCAGACCTCTGAGGTT
CGAGGAGGTGGTGGTTTTCATTTGGGGCTTTGCATATTTGGTTGTTAGGTTTTCGAGAG
CCTTCTTTATTTTGCAGACGTCTCAATGCGGGGTGAAGTCCACTCGGCCCCCTCCCCT
GAGTCTTCCGTGTGCGCGGAATTCGAGGAGATCCGGTTACTAAGGATATAGAGGAAAAA
AAAAANTTAAAAATTAAAAATTAAAGGTACCTGCC

Table 1

Sequence 1739

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTATGATGGAAG
GAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGT
AGGACCCTATACGGCAACCTCCTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAAT
GCAGTGAAGTAGAAGAAGACAGGGGATATCCAGAAGGTTATGCAAAACATCAAGAGAAG
ATGAGAGGAGTCTATATGTCAGAATACACATTTCCAC

Sequence 1740

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAACATACAGTTAAGCTA
CTTAAGTTGTAGTGACTTAGGACTTAATTATCTTATAGGATAAAATAAAAACTTTAATCC
TAAACATTAGCCATTGCATTAAATGCTTTAAAGGAACAACTGGCTTTGAGCTCTGTTTCA
CCATGCAAGGATTATACAATCTCAGTGCTCTAGCTAAATTGCTAATGTTTTATTACTAAT
GCACTGGTAAGCCTCTCATAGAAGATGGGTCTCTTGGATTACACTGAAATATAACTTTT
CTCTTCCATATTATTGGAAGACCTTATTCCTCAGGCAGGAGCTTAGAAAGTCTAAATTAT
GCACCAGAGCCTTAATTATCTGATGGCAAAAACACGATACTCTGGTCACTACTACCAAT
TGACAATNAGAGGACCCCAATTAAAACTCTAGAAATATTGAGTCCTGAATACCAG

Sequence 1741

GGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGAAAGATGATATACATGAAAATGA
CTTGAAAATTCGTTTCTCTACTTTTTTTTAAATGTAACACAAAGTAAATGAGAATCTGAG
TATTTTATCAAGTTGTTTCAATGAAGACAGAGTTGATTGAGAAGGTAATCCCAGATTGG
ATGGTATGAGTTTCCGGCAAGATTAGAGAAAGAGTTTTTCTATGTAATAACTGATTTTG
TTCACATGCTTCTCTTGATGGCTCATCAGGATTTTAGAGATAGAAAGGACATNTTATCC
AACCGCTTTCATTTTCTAAAGAAATTGGGGACCGGGCGCAGTGACTCATGCCTGTATTT
CCAGCACTTCGGGAGGCCGAGGCAGGTGGATCCTAGGTCAGGAGTTCAAGACCAGCCTGG
GTCAAGAATGATGAAACCCCGTCTCTACCAAAAAA

Sequence 1742

GGCGGCCGCCCCGGGCAGGTACAGTTACAACCTGACTTGCATAACACTAAAGAAAACATTGT
AATTCCTACGCCAGTAGTGGGGGTAAACTGAGAACCAACCTAATTTTACCACAGGGCCC
TCTGGAAATAGAGGAACTAAATGATGACTGNTTGAAGTGAAAGAGGGCAGATTCCTAA
GAACATCACTCCTACTGCATTCTTACCTCCACTCCATACCCCTTCTCTTCACTCAGG
TAGGACTGTCTCTGGAATGCATGACAGCATGCACAGTTCAGAGCTTGGATGTGATCCTGG
AAATGGGCTTAGATGACCTTATGAACACTGAATGCTGATTGCAGACACTCTCAACCTTCT
TCCTCTAGTTGACTTCTATGGCTGTGCCAGCCAGTCTAGACCCTTCTAGAAGAACTA
GGATGATACATTC

Sequence 1743

AGGTACTTACAGTTTGACTTTGAGTCAGCTCAGCATTCTAAATCAAACGCAAACAGCAGA
ATCATATGGCATANACACTTAGCAAATCCAATGCCTTCCAGGCATCTTGTTTCCTGTTGA
TGAAATCCTCCCTATGGAGAGCAAACCTGGTTCATATCTTCANATANTGTCATTCAACCCC
TTGGGCAGCCTTTTCTTGGGGCTAACTAAATATTNCGGCACCCCGGTTTCTTGGGTTGG
GGACCATTTTTCAACCCCNAAAGGTTGNTTTCANTTTTTATTTAAGATTTTTTCTTG
GGGCTTTCCNGTTGGGGAAGNAAAAATTAATTCCTGGCCNCTTTTCTTTCTTGAAG
GTNATTTTGGANTCTTCTNCAATTTTGGNGGCCNGCCCAATTGGGNTTGGAAAANAAAA
TAATTTCCGGCCCCCTTGGGTTATNCATTAACCCCCCCCCGGCCGGTTTAACCCCTTGG
CCCCCCCCGNGGGNCCGGGGTCCCCGGGCTTTCTTAAGNAAAAACNTTAATGNTTNGNGN
AATTCACCCCGGGGNCNTTGGCNANGGGAATTTTCNNGAANTNATCCAAAAA
GGCCTTTTATTTTNGAATANANCCNGTTCGNAACCCCTTTCGGNAGGGGGGGGGGGGG

Sequence 1744

ACAAGGTCTCACTATGTTGCTCAGGCTGATCTTGAACCTCTGGGCTCAAGGGATCCTCCT
CGCTCGGCCCCCCCAGAGTGCTGGGATTACAGGTGTAAGCCACCACACCCAGCCAACATT

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Table 1

CTTATTTTATGCTTCCTTTGTAAATATAGTGGAGAAAAAATCACTGTATTAGGATTT
CTCACCAAGGGCAAGATAGTCATATGAAATAGTCCTTAGCTTCTTTAGTTGCTTGAATAT
TACCTCCCTGGTCTGTGAGGTATCTTTTGCTTCANATCATTTCCTCAAAGAAACACATT
ATTGGTTAATATNATTGGTCACCTTTTGAAGTTGGGTCCTATATGCTGATTCCGGGTAGC
CCCAGACTTTCAA

Sequence 1745

AGGTACAGTGGCGCCATCTCTGCTCACTGCAAGCTCCNTTCTCCCAGGTTTCATGCCATTC
TCCTGCCTCAGCCTCCCAAGTAAGTGGGACTACAGCCGCCAGCCACCATGCCCTGGCTAAT
TTTTGTATCTTTGGTAGGGACGGGGTTTCTCCATGTTAGCCAGGATGGTCTAGAGCTCC
CAACTTCAGGTGAGCCACCATGCCCTGGCAGGACTTTTTTGTATGTAAGCAGAGCCCCCTT
TGCCAGCTTCCCTGGGCTTATCCCCCATAGATGGCAGCTGGGATCCAGCCTCTTGCCG
GTTGATATTGTCATTCTTGAGGGGGGCCAGGTTGGGGCTAATGCTCGTGTGACTAGAGC
TTGCTGGTGTGAGGGTGGTTCATCTGAAGTTCATGACCACTAGGCTTTGATCTAAAAAA
A

Sequence 1746

ATACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGGCTTTGCTCCAGGCCTCAGGAG
TGTAAGTTTAAGGGGCGCGAACCTGGGTGGGACGGGGCAGTTTTTCCAGCGGGCCATACG
GGAAAAATTTTGGTTTCGAGGAAGACAACCACCTTTTTAAGGAGAAAACTGCATCTTGCC
CTGCGTTATTCTACGCGGTGCCAGGTGGGGTGTGTGTGGACCAAGTCAATGACCGCCC
AAGCTCTCCGAGTAGAAAACCCAAACATGGTTTTGTGGGGTGTGTGCCTTTGACCCCGGA
CTTAAGCAAAAAGCGTGGTCTTGGGCGTAGCTACNAGGTGGGTGGTGGGGCTTCCAAGG
CCCTGCGTGCCCCCTCGACGTTGAACCGATGATTGGGCGGGTGCCAAGGATAAACAAGAT
TCGCCCCCTTCTTTNGCCCACTTCAATTGGGCAAGGGGGGACCTTTGCTTACTTTTCCCC

Sequence 1747

CCGCGGTGGCGGCCGCCCCGGGCAAGGTACAGCTGGACAGGGATATAAATCAGTGAACCTCTG
AGAACACTTTTAAATCCAAGCACCAAATAAGGCAGCATTTCTGTGACTGCTGGACGCCAC
GGTTTAAGTGAGATGCCAAACATTCTCATTTGGGAAAATGCGCAATAGTCCACAGAGAG
AACAAAATCAAAATGTAAAAGTTGAATAAAAAACACTCCTTTGGAAATAAAATATTACT
CAGCATAAGTTAGCTGACCTCATCTTTGGGACTAGAAAAATAACAGTAAATAGTAATAAT
AGCTCCCCGCGTACCT

Sequence 1748

AGGTACATCTCTAGCTGATGATTCAAAAAAGAAACCTTTAATCTCACTCCACTGATCAG
CTATGATACTTAAATGTTTTAGCTGTGAGCAAAATAATATGCATTCTCAAAGAGAGTATC
TTCAGACTCCAGTGGCCGAGAATCTAGAGTTAGCAATGGAAAAATTAGTCTCGGGCTTCT
GTTTCTGCCACAGTTTTCAAATTAAGAACAATGTGTTGCACTTAATGAAACAACCTCT
ACTGCTCTTCAAGAGGACTCAGGATACCGATTCTCGAGGCCCTGGGCGGTCCCCTGTAA
GTACCTGCCCCG

Sequence 1749

AGGTACATCTNTAGCTGATGATTCAAAAAANAAACNTTTAANTTTANTTCNNTNNNCNA
NTTTTAANCCTAAAATGGTTTAACCTGTGAACCAAAATAATATGCATTCTNAAAGAGAG
TATCTTCAGACTCCAGTGGGCCCCGAGAATCTAGAGTTAAGCAATGGGAAAAATTAAGTCT
CGGGCTTCTGTTTCTGCCACAGTTTTCAAATTAAGAACAATGTGTTGCACTTAATGAA
ACAACCTCTACTGCTCTTCAAGAGGACTCAGGATACCGATTCTCGAGGCCCTGGGCGGT
CCCCGTAAAGTACCTGCCCCG

Sequence 1750

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCAGATAACTTATC
CAAGGACAAATAGAAAGGGGACTGTGTCTAGAGGGTAATGCTAATGCCTGGCATGCTATA
AAAATAATGAAATCTGATTAACACTATTGGAGGGAAGAATAAGTCATCGTTTCTATGGA
ATATTATTTCTGATTGGAACCATTTCCATTTTCGTCAGCTTAAACATTCGATTAAAG

Table 1

ATGAGATGACTTTAAACGGTGACAGCTATCTCAAGCCCTGTGATTATAAATGGTGTTAT
AGGCTTGTAATCCTATGGGTTTAGACTAAAGTATTTTCTTCATAAATTGAAAGAGAAACA
CACTAGGAATTCAGAAGATTTTAATTAAGTTGTTCAAAAAATTTAATGGGAATTTAAAG
GCTGGCTCACTAAGTAGTTTTGATAATGAATTTAATTTATAGAAGAAAGTCTTGGC

Sequence 1751

CACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAAAG
AATGTTTCATAGCAGCATTATTTGTCATAGTCAAGAGCTGGAAGCAACCCAGTTGTGCATC
AATGGTAGAATGGATGACTAAATTGTAGTGTATTCTTACAATAAAATACTATAGAGCAAT
GAAAATAAATAAACTATGGCTATATTCCACCAACATGGATAAATCTTACCAACAATGTTA
GACAAATGTAGCCAAACCAAAAAATACACATGTTCTATGAATCCATATATGCAAGGTTCA
CAATAGGTGATAGTAGCTACTCTTTTGGGAAGGAGTGAGGAAAGGACTGAGAGAGTATTG
CAGAGGGGGCTCCGGGTGTTTGTAATTTCTATTTCCAGTGCGAGGTGTGGTTTGTCATGAG
CATGTTCACTTTGTGGAAATTCATTGAGCTGTAATAATATACAGAATTATTTATGAAT
GAAATG

Sequence 1752

ACCACTGCTTTCCCGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTAC
CACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGCGTCCT

Sequence 1753

CAATCTGTTCTGCTCACCAGCGAGTTGTTGAGTTCATCGAAGACGGACACGGCGGCCAC
CTGCTGAGAGTGGGGACCTCTAAATTTCCGGTCCGGCACGCTGCGGTTACCCGCCCAT

Sequence 1754

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCACCAGTTCCTCCAG
CCTGCCAGATAAAAAATAAACTGTCCACTCCAGGAGGGGAGAGGCACAAGCTGCTCTGATA
GAAACCGTTTCTGAGCATTATCTTGACTGTTTGCAGAGGAGACATGTGTTCCAGCCAGC
ACAGAGCTGCAGGATTGCCTTTTGCGATTGTGAGAATTATGTCATAGTGAAATATAGTT
GAGAATGCTGGGCAGTACCTGCCCCG

Sequence 1755

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTTGCTGCTTTT
CTTGAGTTTCATTTGTCTTTCCAATGATCGTATATGATTGAATAGTAGAGAAGGCACCTGC
AAGTAGAAGCCAATGGCAAAGATTGATAAGCATCTTTCCTGGACTCTGGTGCTTCGGGG
GTGCCAATAACTGCACTCTGAGTAATCCTGGGTCACTTTCATCAATTGAGAGAGTTAAG
TCAGGGGACTTATGATTTCTTTCTCAACAAGACCAGGTGAACGTGTTTTGCAGTTCTAA
GTATTATTTGCAAATTAATAGCCATATATCTCTAAAGCTTCCTGAGCAACAACCAGAGG
TACCTGCCCCG

Sequence 1756

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGTTATGGCTGAGTGTTT
CAATTAATAAATACATTGCATGACAATTTCTGTTTCACAAAGAGAAACAGCATTTTTGA
AAAATTGAATTCTCCTGTGTAACTGGTAGAGTTTTCTATTCTGAATATACATCCTTTC
ATAGATATTACTAGCAGGCTAAACATCTGGCATTAAATGTCATTACTATAATAAACCA
CAAAATTGGCTGCCTGATTTGAAGGGTCAATCTTATGGAGTAAGTGAAGAAGAAATCATT
TTAAAGGAGATGAGCAGTTTTGGATTTATGATACCAATAATTTCTCTTTAAGGAACTC
CAACTCACTTAATTTAATGTTAAGAATAAAATCAGACTAATTAGTTCTCAGGACAGGTCA
ATGGCACACCATTTTCTTTTCACTTTGGCAGAAACCTAGGAGTCACTT

Sequence 1757

CTATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGC
GGGTGAGATTCTGCTGGGTGAAGCCTAAGGGCATAGATGAAAAGTTAGGATTTGGAAGGG
AGCCAGAAGCCAAAAGCAGTTCCCAGAGGCCAGGCAAAAACAGAAGCTGAGTGTGGGACT
GAAGCCAAAAGCGGAAGATGATGAATTCACAGCGAACCGTGGGAGCCGTCCTGGAACA
ATGCCTGAGATGCGCGCTGGCTTTCTGGGAGCAGTTAGGGCCCCCTTAGGTATGTGAACC

CGCCTCACTAAATGGCCATGAGCAGAACTGAACTGCCTACCTGTTTCTCCACCTGTGCAA
GACCAAGTTTTCTTAAGAANCCAGACGAANGCTTCTTTGAAAATNATACCGTTGCCAT
TTGGCTTGGCCCCCTTGGCCTTAAAGCCTTAACAGGTTTANGGACTTTTGGGCCCTGGG
TTAAATTT

TACGACTCCTATAGGGCNNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTATAGT
TGAGAGCCAAGTCTCCCTTATNATTGGTGAATGAGAATGAGCTACTGAAAACAAAAAGAG
GGTCTTCTACTCAGCCTCTACCCCTAATATTTATATCAGAAGCAGAGATTAACTGTCCTT
ACTCATTACACGTTAATGGAAGAAGAAGGGAAGTTTCCTAGAAAAATCCTCCCGCTCCA
CCCTGCAAACTTTATGCTTTTCTGTTACATAATCAGGCAGGGACAAGACCTAAACTATTT
TGAATTGGTGGTGTGAGGGCTAAATTCTCTGCTATTGACAGAATTGAGAATGTGATCAAT
TCAGAGTAGCATGTTACAAATTTGTCCCAATTTCAATGGGGAGAATTATAACAAATCA
GTAGTGGTTGGGAAGAATCTGTTCTTACTTTCTCCCATCCAGTTGACTAGGGATTGGG
AAAG

TGGGCCGCTTTTCCGCTTCTCGCTTAAGTGAAGTTCGCTGGCGGCTTCGGGTCGTTTCNG
GCTTGCNCGGCGAGCGGTATCAGCTTCACTCAAAAGGGCGGGTAATACCGGTTATCCACA
GAATCAN

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGGATGAAATGAGT
GATTCTGTCTTAACAACTCCTAGTCTCGTGGGGTGGACAGCTGGGAAGCTATTTAGAG
AGATTACAAGGATGAATACCTTGGGCTCGATAGAGGTAGAAGCAAAGTGCTTAGTGTTA
GAGAGCGTTTCTTGAGGAGGGAAAAATCAGAATCAGTCTGGGTTTTAGGAAGATAATTCTG
GAGGTTGAGTGAAAGATGAATGGAGAGGTGATAGACTAGCTTGGGCATTATGGAGATGGA
ATGAGAACGGAAGGGGCAGATAGGACAACCTAATTGGAGGCCGGAGTGAGAGGAAGGGGCC
AGGATGACTTTCATGATTTCTGCTCGTGGTTGCAATAAAGGGATCATGATCGTAAAGATCA
TTCCCATTTGACAAAGGGAAGA

GACTACTTAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGGGGCGGTATCGAGAGTGTG
CAGCGTCAGACGGGACATGGGGTACCTTGCTAAGTTGGTAAGTCAACCGGCCATTATATC
GGCCATATCGCGCACGCAACAGACGTCAGCGTCGTCTTTGTGCTCGTTCGTCTGTGAT
TGTGAGATCCCTTGATTCGCGCAGGCTCTTAGCTGGCCAGCTGGCGCAATTTCTGGTCGCG
CCGGTAGCCCTTGTTGCTGCCCCGTGACCCGCTTGAAGGCGCGTGTAAAGGCCGGCGT
GCGAGCGGTAACCCACCAAGTT

CCGCGGTGGCGGCCGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
AATTGAGAAGGAGAGAATTCTACTGGTC

[illegible]

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Table 1

CAGAGGGGTCTGTCACATAGATGCCCTTTCACAGCTGGAAGTGGCAGAGCAGTTGGGTGAC
CCTACCCAAAGGAAAGATAGATGTGTTCTGGCCAGTGCAGGGGTGAGATGTGAGCACAG
CTGCATGGCCATGCTGCTGCTTGGGTCTTGTGCGAGGGGATTGAGAAGTTTAGACAGA
GGTCATTGCCCAGATCAGTTCAGTGCTACATGATGCTGGTGGTCATGACTTGCAAGGGT
GGTTCCTGGGCCATCAGTGAGAATAACACAGGGAGTTCCTCTCTAGGTCTCAGTGAGAG
ACAGTCTCTGAGGCCCTGGCTTCTGAGCCGGATATTCCTGATGGGTACCT

Sequence 1765

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGAGTAACTACTTGAAGGCAATTCCTGTGCT
TAAATGGCCACGTGAAAGGTGTCCCTGACATGGAAAGGACAAACCATGAAATGACCCCT
GAAGCTCTTAAGGTGTCTGTCAAAAAACAAAGCCAACTGTCAAAGTAAAAGCCAAAT
CATCAAAAAACACCTATTCTTCAGAGGCCTCAAATCTCAAATATCTCCCACCATCCTT
TGTAAGTATGTATAAGGAGGCCAGGAACTAGCATTGCTGAGACTTTATTCTCAGCTTT
GTATGCTTTGCATAAATGATGTCATAGAACACATTGACAGTGAGAAAACTAACGTATTAA
CATTTTAATTACCTTGCCCTATCACAAGATTAGAAAGATTCAAGATATGAGACATCCAAA
GTCTGTGATCTGAACACCAGAGTCAGAGGCTGGCAACCTATGGCCACGGGCTGAATCTG
GCCACTGCCTGTTCTATAAAATAAAGTTTTATTGGA

Sequence 1766

CCGCGGTGGCGGCCCGAGGTACTAGGATTGCAGGCATGAGCCACCATGCCCAGACTAATTC
CTGTTTTCAATTTTAGGTAGTCATTTGATTATTGAGTTGTAGAAATCTTACTTTTGATT
AATATATTAATAAATATCACCAGTTAGCCATGTGTTAACTGCTTAGTTTTCAACCAAAC
TTCAATCATCAGCCAGCCCTCACTTTCAGCCAGATCGACGGACTCAACGCTTGGTGATC
GGTAACTCCTTGTTTTTAGCTAATGCTTTAATTAGCAATTACCATCTTTGCTTCAGC
TAAACATCATACTTCTCAATGCTTTGGTTATCAGCTAATGTCTTCTTTTCAGCTAACAC
CTTAGTGGACATTAATACCCTTGTTAACGTATGTTACTTCAACCAGATTAGACCTGGCTG
CATTGGGAAAGGAAAGTGGGGGGGCTTGACAAGG

Sequence 1767

AGGTACTTACAGTTTGACTTTGAGTCAGCTCAGCATTCTAAATCAAACGCAAACAGCAGA
ATCATATGGCATAGACACTTAGCAAATAGTTTGACTTTGAGTCAGCTCAGCAATTCTAAAT
CAAACGCAAACAGCAGAATCATATGGCATAGACACTTAGCAAATAGGCAAGCGTCTCTGC
ATCCCAGAGCAAATCCTCTGAGATCCTCAGTCTCTCCTGCTGAAACTTCATCTTCCACTC
CTGCCCTTGGGTCAATTTCCAAACGGCAGGGCACCAGACACGCTCTACCTTATGTGGAGCC
ATACTGTTCAATTTATTAGTTTCTGGCTTCGTGGAGAATTATCGCCTTCTCTGAGTATT
GATTCATTGTGCCCCCGCGTACCTGCCCC

Sequence 1768

GCTTGAACAAATCCACCTTCTGTGGACCAAGCACCACCCTGGGCATTTCTAGCATGAGCA
AAATCCAAGGTCTGGCTGGACTCCAGAGATGCTATTTACCTCAGAAGCATGACAATAGG
AGGCAGAAGGAGCAGGCAAATCCAAGTCTTTCTTGTAGTTTCTTGTGGGGAGGAAA
AGTTGAGTTTTACTATTATGAAAAGAAACAGGAAATAGAGACAGACAAAGAGATATGAC
AATACAGTCTGCCACCCAGATACTCATTTCCACCCACCATTCCATGCATTTGTTTTGAA
TATATAAGTATGTACCTGCCC

Sequence 1769

CCGGGCAGGTACGTGCTAAGTTGAAAAGGAGCCTCAGATTTCTCTGACCTACCTCTTAC
CCTGTGCTGTCTCTCCCAGGATTTCTGAAGTTCTTGTCTGCCTGAAGTCCAGACCTG
CCTCCTCCACATCTGTGGCTTGGTGCGGAGAGCATCTCTGGGCACTGGAGGAACGGTACC
T

Sequence 1770

CCGCGGTGGCGGCCCGAGGTACATGTGAATGGGAAACATTCATAAGTTCTTATTGCCAAG
GGCATGTAAATGTGATAAAGCGGATCCGAAGACACATGGGAGTGAGACTAGGAAAGTATT
AAGAACATGGGCCTTGACCGGGCGCAGTGGCTTACGCCTGTAATCCTACCACTTTGGGAG

Table 1

GCCGAGGCTGGTGGATCACAAGGTCAAGAGTTCGAGACTAGCCTAGCTAAGATGGTAAAA
CCCCGTTTCTAAAAATTAGCTGGGCACAGTGGCGGGCACCTGTAATCCCAGCTACTTGGG
AGGCTGGGGTCACTTGAACCTGGAGGCGGAGTTGCAGTAAGCTGAGATCAGCCCACTG
CACTCTAGCCTAGGTGACAGAGCAAGACTCTGTCAAAAAAAAAATAATAAAAAAGAA
TGTGGGC

Sequence 1771

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGGTTTTTAAATCTGTCACT
GTTCTTCCCCCACTTCAAAGCTGACTTGACAACCTGCATTTATTTACATTGCAATTGCTG
CAGGTTAATAATATTGTTTTATCAGGAAACATTTATCTTGAGGAAGAAAGTTATCCTAAT
ACNGCAAGATTACCTNATCCCANGGNCAAANTAGAAAGGGGACTGTGTCTAGAGGGTAAT
GCTAATGCCCTGGCATGCTATAAAAAATAATGAAATCTGATTAACTATTGGAGGGAAGA
ATAAGTCATCGTTTCTATGAAATATTATGTTTCTGATTGGAACCATTTTCCATTTCCG
TCAGCTTAAAAACATTGCATTTAAAGGATTGAGATGACTTTAA

Sequence 1772

TNNCCNTCNGTCCTTTTNGGTTTGCNGCCGAGGCGGTNTTCAAGCTCACNTCAAAGGGC
CGGGTTAATACCGGTTTATTCCACAAGAAATCAGGGGGATAACCGCAGGAAAGAACATTG
T

Sequence 1773

AGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACAGTTTAAAAAT
GCTAACCTATATCAACATTTTCCCACCAAAGTGTCCCAAGGGCAAAGGTAAGTGAAT
ACATGTTTCCATGCTTGTGTGTCAGGGGCACACAGCAAGGGAAGGCAGAATGGGCATGACCT
ANATTNNANNCCNNAAGCCTTCAAANTTCTTTATTAAGAAGCTTGGGGACTGCATCTTT
AAAATAATATGGGTTTTNTTTATTCTTTGATAATAAAAAAGAAATGGAACCAAATCCTGGG
TTGTCTGATTCTTTGCCANTGCNTCTTCTNATGTCTAACACTGCCTCGTCTTATGAAT
AACNTCTGNACATNTACAGAGGAAAGGACTTATTTGNNTT

Sequence 1774

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCCGGGCAGGTACACTTATAGT
TGAGAGCCAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAAACAAAAGAG
GGTCTTCTACTCAGCCTCTACCCCTAATTTATATCAGAAGCAGAGATTAAGTGCCTT
ACTCATTACACCNTNATTGAAAAANAAGGGAAGGTTTCTAGAAAAATCCTCCCGCT
CCACCCTGCAAACTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAACTA
TTTTGAATTGGTGGTGTGAGGCTAAATTCTGCTATTGACAGAATTGAGAATGGTGAT
CAATTTCCAGAGTAGCCATGTTACAAATTTTGTCCCAATTTTCAATG

Sequence 1775

CCGCGGTGGCGGCCGAGGTACTTACAGTTTGACTTTGAGTCAGCTCAGCATTCTAAATCA
AACGCAAACAGCAGAATCATATGGCATCGACACTTAGCAAATCCAATGCCTTCCAGGCAT
CTGTTTCTGTTGATGAAATCCTCCCTATGGAGAGCAAACCTGGTTCATATCTTCAGATAG
TGTCATTCAACCCCTTGGCAGCTTCTGGGCTACTAAATATCACACCGTCTGGTGGGACA
TTTACCCCAAGTTGTTCAATTTATTAGTTTCTGGCTTCGTGGAGAATTATCTGCCTTCTC
TGAGTATTGATTCATTGTGCGCATGGTGAAGATATCGCCTGT

Sequence 1776

CGAGGTACGCACTTGTGTGCNTTCTGTTGGGTATATAACAAGTATGATATTGCTGGGTC
TTAAAAATTTATATATTAACCTTCATTAAATGCTGCCTAAGAATTTTCAAGTGGTTGCG
CTATTTTACCTTACCAGCNCTAGNTGTTCCATATCCTTGCTGTNACTTGGCATNATCTG
TATTTTTTATTTTACCAGACTGGTCTGTGTGTCATAGTATCCCATTGTCATTTTAAGTT
GCATGCCTTTGATGAAGACATTTTCTGATGCTTAATTGGCTCTTNGAATATATTCTGTAA
CTGATTGTAGGAGTCCCNNTATATATTCTGGATATAAGNTTTTTTATTGGACATAAATA
TTGCANATATCCCTCTCCCACTTAACTTGCCTTTT

Sequence 1777

Table 1

ACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGTA
TTCTGAAAAATCTATCTCTAGAATGAAGTCATGACAGTTCACCCTACTCTACTAGTTTTG
TCCAAGCTAATTTTCATGTATGATTTTGTAACTGATTGAACAATACTTGAAAAA
AGTTAGATATATAAATGAATTTGTTGGGGGATAAAACATAAATTAAGCCTATCCCTATAA
AATCTACTCTTTCTGACTTCCAGGAGTGGTCCTTTATTTGAGAGGCCAAAACATATACAT
TTCACATTACCATTTTGTAGACTTGATGAAGCCCAGTCCTAACTGTGGCTGAGGCTAAG
GCTGAATGGTTGGGATTTACTGTGAGAATGGACATTCTCCCGGGTCCTCACCTGAGGTCA
TTAAATTGATTTAGTCTAGGTCCACTGGTTGTATTTT

Sequence 1778

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACAAGGGAGA
CAGCATGCAGGGTGTGTTTCTAGAAGAGCTTGCTGAGGTGCTCGGCTCTTAGCATTAAAAAT
GTGATGTTGGTATATCATCCTGATAGAAAACACTGCTTTCAAATCCTAGTCACTGGATG
GGAGGAAAGTAAGAACAGATTCTTTCCAACCCTACTGATTGTTATAATTCTCCCCATTG
AAATTGGGACAAAATTTGTAACATGCTACTCTGAAATTGATCACATTCTCAGTTCTGTCA
ATAGCAGAGAATTTAGCCTCAACACCACCAATTCAAATAGTTTAGGTCTTGCCCCCTGCC
TGATTATGTAACAGAAAAGCATTAAAGTTTGCAGGGTGGAGCGGGAGGATTTTCTAGGA
AACTTCCTTCTCTTCCATTACGTGTGAATGAGTA

Sequence 1779

CTACTTAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGCCGGGTCCGGCGCATCCATGGCGA
ACAGGCAGACGAACGCGCCTTGCTGCGCGCTGCTGGCGGTGGCGCCCTGCGGCCAGCA
CCGTGAATTGTGGCGCCGTCACCAGTTGCAGCAGCGGCTTGGCATCGGTGCGCAGCACGC
GGCGCGCTGGCGGCCGCGGCCNCGCCGCANCAATGGCGGGCCTGNAGTTCCAATNGG
CAAGGGTGCGCGCGCGGCNN

Sequence 1780

CCGGGCAGGTACAGCACCTTGCTGCTGCCACCAGCCGGCTGTGAACTGGTACGCGGGG
TAGATGGAAGGAAGAATTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTA
GGTACTTGTTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTATAACATCCT
GCAGGAAAATGCAGTGAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATC
AAGAGAAGATGAGAGGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTGGTGTCT
TGCCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCCACCTTG
CCCA

Sequence 1781

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGGTTTTTAAATC
TGTCAGTGTCTTCCCCACTTCAAAGCTGACTTGACAACGCAATTTATTTACATTGCA
ATTGCTGCAGGTTAATAATATTGTTTTATCAGGAAACATTTATCTTGAGGAAGAAAGTTA
TCCTAATACAGCAGATAACTTATCCAAGGGCCAAATAGAAAGGGGACTGTGTCTAGAGGG
TAATGCTAATGCCTGGCATGCTATAAAAAATAATGAAATCTGATTAACACTATTGGAGGG
AAGAATAAGTCATCGTTTCTATGAAATATTATTTCTGATTGGAACCATTTCCATTTTC
GTCAGCTTAAACATTGCATTAAAGATGAGATGACTTTAAACGGTGACAGCTATCTCAA
GCCCTGTGATTATAAATGGTGTATAGGCTTG

Sequence 1782

ATAGGGCGAATTGGAGCTCCNCGCGGTGGCGGCCGAGGTACCAAAGGTCTTCAAGGGTAA
CGATGCTGCTCCATTTAAATAAAGATGAAGGATGTGCAACACAAGCAGCCTTTAACCA
GTAGGCCCATAAATAAGACAGTAGCTAGTGCTATGCAATTCTAACACTGGCACTTGCTGCT
GGGATTGGCCTCTTCTAGGCTAGGAATCTTAACCTGGAGGTCAAGGACTTGGGGGGAGG
GTCCTATGGACCCCTTGCAATGTAGGCAAAATTTGCATAAACATTTTCTGCACACGTTT
CAAAGGAACCTGGAATATCCGTAAGTTGAGACCTCCAAATTAAGTAGAGCTAATTGCCCA
TTTTATTCCTTTGTATCATCTCAAATGCCAATAATATCTAGTGTATAAATAATGTTTG
CTGGCTGCTTAGGAGAGAACTAGATGTGTTAATGACGCCATCTCACAGTGAAGGGGCA

Table 1

G

Sequence 1783

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTA
CTTACAGGGGACC
GCCAGGGGGCTCGAGAATCGGTATCCTGAGTCTCTTGAAGAGCAGTAGAGGTTGTTTCA
TTAAGTGCAAACACATTGTTCTTAATTTGAAAAGTGTGGGCAGAAACAGAAAGCCCCGAGAC
TAATTTTTCCATTGCTAACTCTAGATCTCGGCCACTGGAGTCTGAAGATACTCTCTTTGA
GAATGCATATTATTTTGCTCACAGCTAAAACATTTAAGTATCATAGCTGATCAGTGGAGT
GAGATTTAAAGGTTTCTTTTTGAATCATCAGCTAGAAGATGTACCTCGGCCCGCTCTAG
AACTAGTG

Sequence 1784

NGCGGCCGAGGTACACTTATAGTTGAGAGCCAAGTCTNCCTTATCATTGGTTAATGAGAA
TGAGCTACTGAAAACAAAAGAGGGTCTTNTACTCAGCCTCTACCCCTAATATTTATATC
AGAAGCAGAGATTAAGTGTCTTACTCATTACACGTTAATGGAAGAGAAGGAAGTTTCC
TAGAAAAATCCTCCCGCTCCAC

Sequence 1785

CCGCGGTGGCGGCCCGCCCGGGCAGG1ACCATTGACTACTTCATACTGCTACAAAATGCAT
TTGAAATTTTTTTTCTGGCCAAGGAACCTATTCATCCACTCTCTCAAATTAATACTT
ACTAGAGAAATGTTGGCACTTATTAACCTTGTAATATGAATTAGAAACAACTTGACCTT
CATATATTCTTTTACACTTATGAATCTATTTAACTGCATGATTTATCTGCATGATTCAGA
ATTTCTTGATACCATGTAAGTGAAGTAAGATTAGAAATATATTTCTTGATACCCTGT
AACTGAAAGTAAGATTTAAAAAGCTGAGGTGACAGTTGTACCCATAATGCTGATAAATAT
AGGAATGAGTCGATTATAAATTTAAACCTTTTGGGGCATTATGCTACCAAAATNTCTCT
TTTTTAAA

Sequence 1786

CCGCGGTGGCGGCCCGCCCGGGCAGGTA
CTTATTTCTTTGCAAGATAGTTTTGTAAAGCGT
CCATAAGCAGAGACTGTGTCAAGGCGTCTACGCAAATTACAGGACCTTGACACAGACAGT
TGCATAGAGCTGCATAGGGGAAAGGCGGGCAAAGGTCTGACCTAAGCTTCAAACACAN
GCCTTCATACACCGTGCCACCT

Sequence 1787

GGTGGCGGCCCGCCCGGGCAGGTACAGATTGNGTCCACTGGAAAGGTAAATGATTGCTTTT
TTATNTTGCATCAAACCTTGGAACATCAAGGCATCCAAAACACTAAGAATTCATCATCAC
AAAAATAATTCNTCTTTCTAGGTTATGAANAGATAATTATTTGTCTGGTAAGCNTTTNTA
TAAACCCACTCATTTTATATTTAGAAAAATCCTAAATGTGTGGGTGACTGCTTTGTAGNG
AACTTTTCATATACTATAAACTAGTTGTGAGATANCCATTCTGGTAGCTCACTTAATAAA
AACAATTTCAGAAATTAAGGAAATTTCTATGCAAGGTTTACTTCTCANATGAACAGTAG
GACTTTGTACTTTTATTTCCACTAAGTGAAAAAAGAAGTGTGTTTTAACTGTANGAGA
ATTTAATAAATCAGCANGGGTATTTTAGCTAATAGA

Sequence 1788

AACCTTTAGGGTTNTNCCCAAAGTCCCGGCCGNCGGNTNGGGACTNGGGGGTGAACAC
TTCGAAANTTTCANCTTNCGCACNACGAAANCAACACNNNGAGAAGGCAGATAATTCTCC
ACGAAGCCAGAAAATAATAATGAACAACTTGGGTGAAATGTCCACAGACGGNGNGA
TATTTAGTAGCCAGAAAGCTGCCAAGGGTTGAAAGACACCTATCTGAAGATATGAACC
AGTTTTGCTCTCCATAGGGGAGGATTCATCAACAGGAAACAAGATGCC

Sequence 1789

AGGTACGCGGGAGTAAATACAGTACAAATGTTCTACTGTTTTAAAAAGTTTTCCGCAGA
ACAGTGCATTTATGGCAATGCTATGTTAATGAGTTAGGGACATCAAATATATAGTAGTT
CCTTATTTTCAGTTGTGAAAATGAAATGGCTAAAGCAGAAGAGACGTCTATTTTAGTCTT
TTAAAAATGTGTGTGGGTGGTCTTTTTCTCAGAAGCCCAAAGCACATGTATATTTGT
TATTTCTCCTTGCTATATTCCTGAGACTATACTAAAACTTTAAGAAAAGGAACAAGAAA

Table 1

AAGGTAAATTCATGTGTTCCCCACTGCTGTGTCTAGAACCAAGATCACATTATATCATTG
TTAAATTTGTGTTATCTAGAAAAGGTGCAATATAGGGGAAAAACACTCTAAGAATCTTTTA
AAAGCCTAGT
Sequence 1790
AGGTACGCGGGGGACTCCTTGAGAAAGAAACGGCGGAGACCTGAGACCGGGAGGCTGAGGC
TGTAGGTGGGCTCCGCTGGGTAAAAGTTGCCGCAGCAGCTGTCCCTTGCCCCATCGCGA
TTTATTTTTCCCCCTTGCTTCCGGGTCCCGGGATCCCAAGTTTGTAACCTAACGGGAAGC
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GGGGGAAAAAAA

Sequence 1791
CCGCGGTGGCGGCCGAGGTACAACCTGACAGTTTATAAAAATGCTAACCTATATCAACAT
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CCTCAAATTTCTTATAANACTTGGGGACTGCATCTTAAAATAATATTGTTTTTTTTAT
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TATCCAGCGGGGAAAGCAAAGGATCCGCAGGTGGTAACACCCTA

Sequence 1792
CCGCGGTGGCGGCCGAGGTACATGCCAGGCACAAGCTGGAGTCACAGATGCCACACTGAC
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CAGTTGCTTATGGGAAACTGGCTGCAGGGGGATCAGTCCACCTGTAACACACGGAAAGGC
AGAGAAACAATGAGTCATGGATTGAGTGCAACAAGCCAGTCTGCTACAGAGAGTTA
CGGAAAAAATCTCACTGTTGAAGAGAGACATCTATAAGAGAGGTGAGGAAAATGACTGAT
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ACTCT

Sequence 1793
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GCCTCGTCTTATGAATAACTCTGACATTACAGAGAAAGACTATTGTTTGTTCAGTTCAAC
ACTCAATTCATAGGTGCTAGCAATTATGAAAAAGGCTGTTAGTATCCAGCGGGGGA

Sequence 1794
GTAATACACTACTATAGGGCGAATTGGAGCTCNC CGGTGGCGGCCGAGGTACTCTGCG
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GTTACCACTGCTTCCCGGACTCTGCGTTGTTACCACTGCTTCCCGGACTCTGCGTTGT
TACCACTGCTTCCCGGACTCTGCGTTGTTACCACTGCTTCCCGGACTCTGCGTTGTTA
CCTGCTTCCCGGACTCTGCGTTGTTACCACTGCTTCCCGGACTCTGCGTTGTTACC
ACTGCTTCCCGGACTCTGCGTTGTACCTGCCCGnnnnnnnnnnnnnnnnnnnnnnnnnnnnnn
nnnnCGGGCTGCAGGAAATTCGAATATCAAAGCTTTATCGATACCGTCGACCTCGAAGG
GGGG

Sequence 1795
CCGCGGTGGCGGCCGAGGTACTCTGCGTTGTTACCACTGCCTCCCGGACTCTGCGTTGT

Table 1

TACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTA
CCTACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACC
ACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACCAC
TGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTACCTGCCC
G

Sequence 1796

ACTATAGGGCGAATTGGAGCTCACC GCGGTGGCGGCCGAACATTTGACATACGCCAGCA
TGTGATGGCCGAAGGTGATCGGCTGGGCCACCTGCATGTGGGTAAAGCCCGGCATGATGG
TGTCGGCATGCTGTTCCGGCCAGGTCCGTCANCGCGCTGCGGAACGTCGCCAGCAGGGCGG
TGATGTCGTCGATGGCGGAACGCACGTTACAGGCGGGATGTCCGGTGGGCCACCTGGTCC
TTGCGCGAACGGCCGGTGTGCAATCGCTTGCCCGCATCGCCTACCAGTTCGGTCAGGCGT
TTTTCGATATTAAGGTGGACATCTTCCAAGATCCAGCAGCCATTCTAAC

Sequence 1797

NTTTTTTTTTTTTTTTTTTTTTGGGCAATACCAGCTTTCACCCTGTCTTCTGCACTGCTT
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CAAAATAAATCACGTCCAGGTGCATTCTTCTCTAATTTGTGACCCAAACTGCTTGCACTT
TATACATTAATGAATTATTTTTTAAAAGAAATTAGCTNTATCATGAAGACAGTGCTATC
TAACCCTTTGTGGTCTTCTCCCTTAAAAAGCAATTGTTACCATTTTATAGGTGTTAGGT
TTAATCTACATATTTGAATGAAGCTGAAATGAACTAACGTATGTCAACCAGTAAAAGCAG
GACACTTAATAATAATGCTTCCATGAAAATATACATTGTGCATATGTAGGCTCTTTTTGG
CATTACCAAATTTGCCAAGAACTTTCTTCTATAAATTAAATTCATTATCAAACTTCTTA
GTGAGCCAGCCTTTAAAAATTNCCAT

Sequence 1798

CGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCAGATCTTACCACTGAGGAATTTT
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AATTGCCCTTCAGTTTTACAGGCCATCTCTTACCCTGTGCTGTCTCTCCCCAGGATTTTC
TGAAGTTCCTTGTCTGCCTGAAGTNCAGACCTGCCTCCTCCACATCTGTGGTTTGGTGCG
GAGAGCATCTTNTGGGCACTGGAGGAACGGTACCTGCCCCG

Sequence 1799

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCACANGATCT
GTTTCCAGAAACCACTACAAGTGTCATGAACCTTGGGTTGCTCTCTGATTGAATTCTGGG
ATCCAAGCTGGGTAAGGAGAGAGATGAGTCCAGGCTGCTACAGAAGATTATTTCCATAA
TTTCAATATGAGCAGTTTTNAAACACANAAGGATTTNNTNGTCNATGTTAGCTAGGCCAG
CCTTAACACTTCCTCTACCTCATTCTTAGAAACCAACAAGGGCCTTTCCAGAGAGGGCC
AAGGACGGTGGCATCCAGAAGGGATGAAAACACTTGAGTACCTCGGCCGCTCTAGAACTA
GT

Sequence 1800

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAACCTTGACAGTTT
ATAAAAAATGCTAACCTATATCAACATTTTCCCCACCAAAGTGTTCCCAAGGGCAAAGGT
AAGTGAATACATGTTCCATGCTTGTGTCAGGGGCACACAGCAAGGGAAGGCAGAATGGG
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CTTAAATAATATTGNTTTTTTTTTTTATTTCTTTGATAATAAAGAATGGAACCAAATCC
TGTTGTCTGATTCTTTGCCAGTGCTCTTTCTTATGTCTAACACTGCCTCGTCTTATGA
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GGTGCTAGCAAATTTATTGAAAA

Sequence 1801

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TGCTCTCTGATTGAATTCTGGGATCCAAGCTGGGTAAGGAGAGAGATGAGTCCAGGCTGC

TACAGAAGATTATTTTCCATAATTTCAATATGNGCAGTTTTAAACACATAANGGATTTA
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ACAAAGGGCCTTTTCCAGATGAGGGCCAAGGACGGTGGCATNCAGAAGGGATGAAAACAC
TGAGTACCTNGGCCGCTCTANAAGTAGTGNGATCCNCCGGGCTGCAGGNAATTGATATC
AAGCTTATCNGATAACNGTACGNCCTNTGAGGGGGGGGGCCCCG

[illegible]

TGGCCGCCCGGGCAGGTACGCGGGGATAATAAAAAATGTATTTACTGAGCCAGTTGTGGT
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GGAGTTTGAGACCAGCCTGGCCAACATGGTGGGATGCCGTCTCTACTGAGAATACAGAGA
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GGCGTGAGCCACTGCACTTGGCCTGGACTCATCTTCATTGTCCACCTCCTAGGCTAAATT
TATGCTTTTATGTGCTTGTAACTCTGCATACCACTTTAGTGACACTTGCCCTGGAGTG
TGATTGGTAATCC

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AACTTGCCAGGCAGATGCGATAGACAGCGCTCAGAGGAATCCGCTGCAGCTACACACAA
CTCAGCATGATGAAGTCGTATTTGCAGATCAAGAGAGTCTTGTCTGTGACCAGTAGAATT
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TCTCCAGAAGTCTCAGCTACGTGACCTTTCAAGTCTTCCATGGCAGTCTCAATGGCCCC

CCGCGGTGGCGGCCGAGGTA^{CT}CCGTGAGATATAAGGCTGATGATAAGGATTGGGGTAA
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CCTCAAGGCTCTTCTTTCTTTCTGCACAAAGGGGGCTAGACCACAGATAGTGGCCAGG
AGAGGTGTAGTCTGCTCAGATAAAGCCAGGCAAGACAGTGCCCTGTGCTGTGACCCCACT
CAGTCTCCCGCGTACCTGCCCG

CCGCGGTGGCGGCCGAGGTACATACATACTTGTATTCTTGTACATCTTCCTTATTGAA
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ATTTTATCTAGTATTAAGTATAGCTGCCCAACTCTGTATGATTGCTGTTTTCATGGNAT
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TCATGCCCTTTCCAGGCCAATCCCCAT

CCGGGCAGGTACTACAAATACATTTTATAAATGGATGATTGGAAGTGCCCTAAATGTCT
TATAAGAAAATACATTATGGTACGATATATATACTAAAATTTATATTTCAGAAGAATATT
AAAAGAGGAAAATGCTAGTGGTAAAAATGTTAAGTAACAAAAACATATATTATCCTCAACA
AAATATTATCAAACCAAATTCAGCAACATCTAAAAAGANTTATACACCATGACTAAGTGA
GATTTATCCCTGGAATAAGCTTAGTTAACATCTGAAAATTCATCAGTGAAATACACCAT
AGTAAGAATAAAGGACAAAAACCAAGGATCATCTCAACAGAAACAGAGAAGGCATTGTA
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Table 1

CCTCAACCTAATAAAGGGCTTCTGTGAAAATCTCAAGGCTAATTCGTATTAATGG

Sequence 1808

CCGCGGTGGCGGCCGAGGTACTTCTGCCTGGGTTATGGGAGTAAAATCTTGTCCAGGGAC
ATCCCAGGGAAGGTGAACTTGCCAGGCAGATGCGATAGACAGCGCTCAGAGGAATCCGC
TGCAGCTGCACAACTCAGCATGATGAAGTCGTATTTGCAGATCAAGAGAGTCTTGTCT
GTGACCAGTAGAATTCTCTCCTTCTCATTGTTCCAAGTGGTCTATCTTTGNCAAGAGCCA
GAAGCCTTGAATGGTCTCTCCAGAAGTCTCAAGCTACGTGACCTTTCAAGTCTTCCATGG
CAGTCTCAATGGCCCC

Sequence 1809

CCGCGGTGGCGGCCGTAGCTTGCAGGGGTGCTATGTGAAGATGGCGGAATTCCCAACGTG
CTTCTGCAAAATTTATGTATTCATCCCCCTCTGCTCTCAGTAGGGTGTACCACCTGCG
GATCCTTTGCTTTCCCGCTGGATACTAACAGCCTTTTTTCATAATTGCTAGCACCTATGG
AATTGAAGTGGTGGAACTGAACAAACAATAGTCTTCTCTGTAATGTCAGAGTTATTCAT
AAGACGAGGCAGTGTAGACATAAGAAAGAGCACTGGGCAAAGAATCAGACAACCAGGAT
TTGGTTCCATTCTTTATTATCAAAGAATAAAAAAACAATATTATTTAAGATGCAGT
CCCAAGTCTTATAAGGAATTTGAAGGCTTCTGGGATCTAATCTAGGTCATGCCATTCTG
CCTTCCCTTGCTGTGTGCCCCGTGACACAAGCATGGAAACATGTATTCACCTTACCTTTGCC
CTTGGGAACACTTT

Sequence 1810

GCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTGAAGATGGAATTCATCAT
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GCCTCCCAAAGTGCTGGGAATACAGGTATGAGCCACTGCACCTCGACCATTATGCATTTCT
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TTAAGTCACTAAGTAGCAGAACTATATCTAATTTATTAACATTCATCATCCCCCTTTGC
CAGCATTGAACATGATGTTTTGCATATANTAGGCATTAAATTNGCTAAANGGAACATAAT
AATGTTTGATAAATAACATCATGGCACATGACCATATTAGGCCTAACTAATTATTTATTC
TTCCATTTAGTGAGTGCAAACTTTAGTCAAAAACATTAAACATAC

Sequence 1811

CCGGGCAGGTACTATTAATTTAATGAGAGGTAACCCATGCACCGGCAGGAAGTTCAAGG
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TTGACATGCGATCTTGCTCTCTCTTTTATAAAGTGCTTCCAGGCCCNNTTGAATAAGAT
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Sequence 1812

CCGCGGTGGCGGCCGAGGTACGCGGGGGGGACAGGCCATCTCGCTATAGGAAAGGAAAGT
GGAACAGCATTATCCTCAACATTTTACGAAGACAAAATGAAGACTGGAGTAGAAGACT
GATCAGTGCAGGTGTAGCATAAAAGTGAATCCTGGAAGATGTGGTGTGAGAAGGTAGCA
CAAGTGAAANCAAGATACAGGAGATAGGGAANGGAAAGCTGGAAGCANAGGTCACTGGAG
GGAGAAGGGAGATGGACACATTCAGGGCTACAAAGCAAGTTCTATGTGATTGCTCACCT
CTCAATTGTGGGACCCCTCAAAATGTGTACCTGCCCC

Sequence 1813

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGGACAGGCCATCT
CGCTATAGGAAAGGAAAGTGGAACAGCATTATCCTCAACATTTTACGAAGACAAAATG
AAGACTGGAGTAGAAGACTGATCAGTGCAGGTGTAGCATAAAAGTGAATCCTGGAAGAT
GTGGTGTGAGAAGGTAGCACAAAGTGAAGCAAAAGATACANGGAANATAGGGAAAGGAAAG
CTGGAAGCAGAGGTCACTGGAAGGGAGAGGGAGATGGACACATTCAGGGCTACAAAGCAA
GTTCTATGTGATTGCTCACCTCTCAATTGTGGGACCCCTCAAAATGTGTACCTGCCCC

Sequence 1814

AGGTACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCG
GGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGG

Table 1

ACTCTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACT
CTGCGTTGTTACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCTTCCCGGGACTCT
GCGTTGTTACCACTACTTCCCGGGACTCTGCGTTGTACCTGCCCG

Sequence 1815

CCGCGGTGGCGGCCGCGTCCTTGACAGGGTTTTATCGGCGCGCAGGTGAAGGCGGACCGCA
ACCGCCTGGCGCTGGCCATGATCTTGCTGGCTGCTGGCCGACGACTGGTTCATCGGCC
AGCGCTTGCCGCGAGCAGGATCTGCTGCAGGTGCTGGGCGAGGCGGCGCGCAACTGGCCG
CCAGTACGCCGGCCACCAGTTCACGCAAGACCCGGAGCGGCGCGAGGAACTGGCGCGCA
TCGTGCTGGCGCGCCTGGGCTTTCCGCCCAGCGACGAAAGCGTAGCGCAGGCCACGGACA
GATTGCTGCCATCAGCGGCACGGAGCGCCGCCGCTGCTCGAACGAAGCCGCTGGCCGA
ACAGCGCGCGCGGGAAATCCGCGAGGCGCTGGCGAAAAA

Sequence 1816

CCGCCCGGGCAGGTACAGTAGAATCCAGTCGTTGGTTTGGAGGCGAGGGCTCTCTGCGGT
CCTCTCCTACTGTCAGGAGCTTCCCGTGCTCATTTTTCTTTACTGATGCACTAAAGGAG
AGTTTGACTTTGAGTCAGCTCAGCATTCTAAATCAAACGCAAACAGCAGAATCATATGGC
ATAGACACTTAGCAAATCCAATGCCCTTCCAGGCATCTGTTTCTGTTGATGAAATCCTCC
CTATGGAGAGCAAATGGTTCATATCTTCAGATAGTGTCAATTCAACCCCTTGGCAGCTTT
CTGGGCTACTAAATATCACACCGTCTGGTGGGACATTTACCCAAGTTGTTTATTATTA
AGTTTTCTGGCTTCGTGGAGAATTATCTGCCCTTCTCTGAGTATTGATTCATTGTGCGCA
TGGTGAAGATATCGNCTGTTCTACAAGGGAGTAAGAATGAGTCCCCGCGTACCTCGGCCG
CTCTAGAACTAAGTGGATC

Sequence 1817

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCTGGTAATTTACAGAACGTTGTTATCAGAT
TTGATAATTATATATTAAGGTTGTAAAGAATGTGTATGCCAGAATTATAGGTAGTAGATC
CTAGATTCTTAGGAAAAATAGTTTCTTTATAATCTTTGAGTAGTGAAATGGTTACTTTT
ACAATGGTTATGAACTGGGTCAAGGCAAAAGGGCCACTATATGTCTTCAGNCATCTTTCT
ATGCCTGAAATCCANGAAACAGTGAAAATGGATGTTCCCTGGAACAGCCATTGCCATGCC
ATATGTTGGTCATTGGTGTCTTAAAGTGATCTCAAATAATTGNGTGTCTCCCTTACTT
GTGAAGTGAAGGGTCACAATATTGATGTGCCCTGATGTGTGCCCCCTCTGCATTTCTGTTGGT
AGTGTCTCAAATTTGGCTATCATATTGATGAGAAAGTCCTAATTTGGTTTAGCTGCCAGAG
GTTTAGGNGGTTTTCACTTCCAGNGACTTACCTGATTGCACAATAGTTCCAACCGTCACT
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TGGGNTTATCCTTTTAAATANTTGCTTGAGAAAGCATTTAAAGGTTAATGCTGGAATT
TATATTTGGTGGGATGCCTNAATNCAATGGGGCCTCT

Sequence 1818

TACGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACGCGGGGGG
ATTGAGAGTGAGAAGGCATAAAGGAGAATCCCCAGCTGACTTGTGCACTGGTTAATTGAA
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Sequence 1819

CCGCGGTGGCGGCCCGAGGTACTTACAGTTTGACTTTGAGTCAGCTCAGCATTCTAAATC

Table 1

AAACGCAAACAGCAGAATCATATGGCATAGACACTTAGCAAATCCAATGCCTTCCAGGCA
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GTGTCATTCAACCCCTTGGCAGCTTCTGGGCTACTAAATATCACACCGTCTGGTGGGAC
ATTTACCCCAAGTAGGCAAATGCATGACAGAACTCACTGGATCAATATCTCAAAATGCTG
GGAAGAAAAAACGGTAACCAAGAAATCTACACAGAGTGAACTACAAAACAAAAATCAA
AGCAAAGCAACAATTTCTGGATATGCATAAAAGATGAAATTATATGTTGCTAGAAAGATCC
ATAGCACAAAGAAATGCTGATATCCNTCAGGCTGAGGGCTATTAACAAGATGGAAATCCA
GAAATTATAGAAAGGACAAAAAGAACAAAAATGAGAAGCATACAGGTCAATACAAAGACT
GCATATTCTCCTT

Sequence 1820

TTGNCCTCCCTGGCTATAACTACTCTAATCTTCCACCTTTNTTCTCCTTACCCTNACTG
CTTTATCTCAAGAAGATCTTGTGTGGTATATAGATGCGAGAAAGTTACCTGCATGATTCC
GACAGGTGCCCTGCCATCACTCTAATGCTGTTCTCATTGCTNGGCCTTATGGCACATTCT
CACTCACTCACTACCCCTGCCCGCGTACCTGCCCG

Sequence 1821

CGAGGTACATGTAGATCCAAACACATGTAAACATTTAGTGGAATTTCCAATCAGTATATA
ATGATTCAATTAATTTAAAAAAAATGGTTCCTGGACAAGTGATTGATAACATGGAGAATG
AAAAAGGTTAGATTTTACTTTACAAACCATACACATAAATAAATTTAGAAAGGTTGAA
AATCTAAATATTTAGAATGAAATGATCAAGAAGTAAAGATAATTTAGATGAATATTAC
TGTAATCTTAGGTTTAGAGCTTTTAAACATGATAAGGAAGAAACCATAAAGGAAAATAG
AGGATTTGAATATATGAAAATTTTACACTTCTATAAATGAAAAATAAGCCATGAAAAAC
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AAAAAGCAGTAAAGCAAAATCCCAATAGGAAATAGCCTAAGTGCAATATTACCAAGNNA
AAANATGTNNNTAAAAANNNAAAAAAAGTNCCTGCCCGGGCGGCCCGC

Sequence 1822

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACAATAGGAA
TAATGTAAATATTTTATATTTAATTTTTTTAATTACAGAGGTTATTGAGTTTGTTT
TTCAGCTGCAGAGAGAGAAATTTGTGGGGATAAAGTCACAAGAATACCAGTTGGCAGAAA
TTGAATTACCTTCCTTTGTATAAGTAATATCCAGTCTAGTCTTAAATGCTATAGGATGAG
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CACTATGGCTCACACCTGTAATCCAGCACTTTGGGAGGCCAGGGAGGCCAGATCATGG
GGTCAAGGAGATTGAGACCCATCCCTGGCCCAACATAGTGGAACCCCGTCTNTCTTAAG
AAATCCAAAAAATTANCTGGGTGCAAGTGGCAAGGTGCCTAAAGGTCCCACTTGCTCANGA
NGCTTGAGGCAAGGAGAAATACCTTGAACCTGGGANGCGGANGGTGCAGTGATCCGAGATC
CACCTTTGCACTCTTGCTGGCCGACCNGAACGAGACTCCGNTTCAAAAAAAAAAAAAA
A

Sequence 1823

GCGGTGGCGGCCGAGGTACGCGGGCATGACAACTAATGGGAAAGACATGGCTCAGATGTG
CAGCCTCAGAGAGCTTCTGAACATTTCTTCTCAGACTAAGCTCTTACACACAGTTGCAGT
TGAAAGAAAGAATTGCTTGACATGG

Sequence 1824

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGATGTGTT
ATTTATCATTTTATGATGCCAGAGATTTACACGAATTTGTGAAAGGTTTTTCTTACCAT
AGATTGAGAGGCGTGTGAGGCAAGGTTTTCATTGTGCAAGTGGGAAATTGGCACATAG
AAATCAATTGATGTGCAGGACTCTGGACTGACTATTCTGGTTATGTTTCCTTATAACAC

Table 1

ATTAAGAAGAAATTTGAGATAAAGTTAGTAATTGTNAACTANTCTTTATTTATTTTAATA
ACAAATGTTGCAGTATAATTTT

Sequence 1825

CACTCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACATTGGA
TTTATTATATGTTAACTACTTCTCAATAAATCTGTTAAAAAATTAAACACATTAAACCAC
CCCTCAAGAGAATCCCTAAAATAAAAAATTTAAAGAGGGGGAAAAAGGAAGGGAAGCTAC
TGAAAGTTGTAAGAAGAGACAAAAAGTTACCAATAATGAAGCCAGTGTTTCAAGGAGTGT
GCAGTTAAAAATAACATGACACACAGATATCAAACTGGCAACTGAGAGAAGTCCAAGGTC
CTTGGCAAAGAGAAAAGCCACTGACCATCCGTGGAAGTG TAGTAGGGTGACAGCCAGAATG
TCAGAGGCTGAAGGGAAGCTATGTGAAACAGAGAGGATGGCAGTGAGCTTAGACCACTTG
TTTAAGAAGCTCAGTAAATGAAAATGAG

Sequence 1826

AGGTNCACTTATAGTTGANAGCCAAGTCTCCCTTATCATTGGTGAATGAGAATGANCTAC
TGAAAACAAAAAGAGGGTCTTCTACTCAGCCTCTACCCCTAATTTTATATCANAAGCAG
AGATTAAGTGTCTTACTCATTACACGTTAATGGAAGANAAGGAAGTTTCTAGAAAAA
TCCTCCCGCTCCACCCTGCAAACCTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAN
ACCTAAACTATTTTGAATTGGTGGTGTGAGGCTAAATTCTCTGCTATTGACANAATTGA
NAATGTGATCAATTTCANAGTANCATGTTACAAATTTTGCCCCAATTTCAATGGGGAGAA
TTNTAACAAATCATTAGTTGGTTGGCAAANCTGGTTCTTAC

Sequence 1827

GGAGCTCCCCGCGGTGGCGGCCGAGGTGCGGGGGGCTTANACCTGACGCTGGGAGGAGA
TGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACTATT
TATAAACATCCTGCAGGAAAATGAGTNTATATGTCANAATACACATTTCCACCTTGCCC
AACAGTGGAAAANCATAAGAAGAGAAAAACNTTAAAAAATGACANGGAAGTTAATGGAAG
TCAGCANTGTGATGGTGTGAGGTTGGAGGCTTCANAAGGTAATTAATGCCCTTGTAAN
AANAGGCCANANAGCTTGCNCACCTTNTTCTGCCATGT

Sequence 1828

CCGGGCAGGTACGCGGGGAGACCTGACGCGGGGGGAGATGCTGCCACCTAGGTTACTTGT
AGGACCCTATACGGCAACCTCCTTTGCCAGGAACTATTTATAAACATCCTGCAGGAAAAAT
GCANTTGAAGTNGAANAGACANGGNATNTTCCAAGAAAGGTTTATGCCANAAACATTNA
TAGTAGAAAGTATTNNANNAAGGGAGGTNCTATATTGGTCAAGNAATAACCAACATTTT
TCCCCA

Sequence 1829

CTATAGGGCGAATTGGAGCTCCCCGCGGNGGCGGCCCGAGGTACTTACAACCTTTTCATAT
AGTATTGGTAGTGTGTTTGAATAATTTAAAAAATCATCTTANGTTTGTATTTAACCTTAT
TTATATAGTGCTTGATTAATGATTTTGTGAATGTTTTTAAAGATGGATACCTTGATT
GGCTTGGCCTNCCAAAGTGCTGANATTACAGGCGTGAACCACCGCGCC

Sequence 1830

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGCGTTTGTAGATGGAAGGAAGAACTTG
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ACGGCAACCTCCTTTGCCAGGAACTATTTATAAACATCCTGCAGGAAAATGGTAAGCCCT
TGGTTAAATTTATTGGCTTCATTTATGTATCTCACAACTTCTTTCTGTTTTAGTTCT
AGGAATAGAACTTACTTTTGAAATACAGTACCT

Sequence 1831

CCCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGAGTGACTAAATTTGTAGGAATGATAT
TTTCATGGGATTACTCAATCTCACCCACCATTAGTTGCAGGTGACAAGAAAGCTAAGTTG
GCAGATGTTTGTGCTAGAAGCTGTGGGTTTACGTCTCCTTTGTGCATGTGTTCCAGACAT
ACCAAGTGGCTTGGTATTTAAACATCATGCTCAGGTGTGCAGGGTAGTTTTTGTAGTTATAA
TAGGTATGCAGGCGCTGTGGGATTACTTGGTTGTTTATGTAAAAATTATTTGCACTCAC

Table 1

TTCTGAAATGAGTGTTAGTAAGAATCATCTTTANAGGAGGTTCCAAGGCATTGAACTGAG
ATACCTGCACTGTTTGCTGTAAATTTAAGCTTAAATTTGAAACCAGGTTATCAGCATTTTC
ATGCCAGGAGAGAGTGGGCATGAATGATTTNAGGAAATGAANAGCTAGATTTACCTTGA
ATTTGCTTCCACCCTTCTGTGGCAAATTAGTGTGGGCTCACTGAGCACTTTATCTGCCCG
TGGTAATTTA

Sequence 1832

CCGCGGTGGCGGCCCGCCGGGCAGGCACCTCCTCCCTATGCATCTGCTGTGGGAAGTGT
GGGTAACACACAGATGATGCCACAGGGCATGTATTCAGGCACCACAGGCAGCAGTGAATG
AATGAAGTGAAATGGTATTTATCCATTTCTGGAAAGGTCCAGGGTTTGGCTCTGCAGGG
CCAAGAGAACAGCTTTAGCTGTGCCTTAACCCAGTCCTGGAGAAGCCAGCAGGCCGTAAT
CACGGGGAGGAAACCCATCTTTAAGGGCTCCTCGCTCAGGTGGTGACAAGGTGAGGTGG
TCATCTATGCTGTCTTTATCAGTATCTGCCTAAATACTGTGCTCTGACATTGATGCTAA
TATCCATATTATCAGGGCTTCTGTGGTGTCTAGGCCTCTAATTTTCTCTTCAGTAAGG
GGAATAACTTTGCTGTGTGCAGCGCAGTGCCTCAGGAGGGTTGCAATCTANAAACAGTGAT
TGTTAAATTTGCCTATAAACACACAATATAACAATATGCCACAGACACAGAGGCCCCCA
GCATAGTTTCTGGAANGTGAAGTCTCACCTCTGCCANAGTANAATCACAAGNGGGAATTG
AGGCTTGGCATCTGGGTGCCTCTTGAACTCTTCTGNGGCTCCTGGTAGACAATTGGCC
CCCNAAACNCAGAAAGATTGAGATTGCCATTGCGTTCAANAAATTGGNGGNNAAATTAAT
GTAATTCNGAAAAAANACACACANGCTTGCTATNTTTAAACCNAAAAAAAAAAAA
AAAAAA

Sequence 1833

CCGCGGTGGCGGCCCGCCGGGCAGGTACTGGGATTACAGGAATGAGCCACTGTGCCTGGC
CTGATTGCGGATTTTATTGGAATAACCTATAAATATTGAACAATGCACCTGCCAAAGAGT
ATGTCTTAATCTTCTCTTGGAATACTGTCAACAAAGATCTCTGAGTTTGAAGGGTAGAAG
TAACTCACTACTTGGCTGCTGACTGTGAAATTTAGTCATGTTTTTATTGTGGAGTGGAC
TGATTAAACAGACAAGTGTATAAGGTTCAAATTACAACATTTCTCCTAATATGCAGTGC
TTTTAACTATGATAAACTGCACCCCCCTTCACAAAAAAGAACCCACCCACCAATT
TTTAACTTTCTCTACAAACACCTCTTATCTCTCTCTATCAAAGCATGACTGGCCTTTT
TGAAATATTCAAGGACAAAAAGTTAGGAAGAGGGCAGGCTCGCTAGTTCAATGTCACTACA
TATAGGGGAAATGGAACACTTCCATANAAAGCTCTTGATTTCTCTCAGCGTGAGTCTNTG
TCTGANGCATTCCCCTNTNTNTGCTACCAGACACCATCACAGCATGTCTTNTCAATCT
GAGTCCCTCAAANGGCATTCTGAAAGTGTTCAAGGTATTAAATGNCATACCCAAAGCCTTA
TTAAACTGCACAGTTATTCTGCTTAAGGTTTACTGGCCATTAAAAATTC

Sequence 1834

CTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGTAGA
TGGAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTT
ACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACTATTTATAAACATCCTGCAG
GAAATGCAGTGAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATCAAGA
GAAGATGAGAGGAGTCTATATTGTCAAGAATACACATTTCCACCTTGCCCAACAGTNGA
ANAAAAAANACTANATTAANAAAAAANGGTACCTNGGCCGNTCTAAACTAGTG

Sequence 1835

CCGCGGTGGCGGCCGAGGTACCAGGCTAGGCAGCTCTGGAGAAAGCAGAAAGTGGAATAAT
AAGGTGTGGACTACCAAAGACAGTTCCAAAGTCAATTTCACTCTGACACACTCTCTGTG
ATCTTCCACAGTCAGCACAATGCCTGCCCCCTGTGGGTGTTGTATAAATATTTGTTGAAT
GAATGAATCAATCATTCAACAGACCAAGGCCAAATCAGAACCCCAAACCTAAGGTCTTT
ATACTCTCACTGTCCATCCATCGATCTTCTGTGAGAAATCAGAATATACCTTTGCAATA
CCCTTTGCTAGCCTTTGAGTTATCTTTTGAATAGAGGCTCTGAGCCTTGAAAAATTGGC
TGGGAAATATTAACACCCATTTGAGTATCTCCAAACACCTCAATTAATATATGGTGCT
GTCTAGCCAGGACCTTATTTAGTATAATGTGAACCTGA

Table 1

Sequence 1836

ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGACTCAATCT
TACTCCCTTG TAGAACAGGCGATATCTTACCATGCGCACAATGAAATCAATACTCAGAG
AAGGCAGATAATTCTCCACGAAGCCAGAAAATAATAATGAACAACTTGGGTGAAATGT
CCCACCAGACGGTGTGATATTTAGTAGCCAGAAAGCTGCCAAGGGGTTGAATGACACTA
TCTGAAGATATGAAACCAGTTTTGCTCTCCATAGGGAGGATTTTCATCAACAGGAAACAGA
TGCCTGGAAGGCATTGGATTTGCTAAGTGTCTATGCCATATGATTCTGCTGTTTGCCTTT
GATTTGCAATGCTGAGCTGACTCAAAGTCAAACCTGTAAGTACCTGCCCC

Sequence 1837

CCGCGGTGGCGGCCGAGGTACAAGCTAACTGTGCTAGGCAGGGCAGCCCTGTGAGTTCTA
CTGCTGTCTTGGTTTTACAGAGGGGGAAGTGAGGCACAGAGAAGTTAATTAACCTCTGAA
GTGTTGCAGTCTAAGGCACAGAGGCACAGTTCCAGGCAAGGTTTCATCTGAATCTTAAGTC
CTCACTCTTTGCCACCATCCTCCACTGCTGANACCATCCCTGTGAAGTCTGCCGCTCTC
CTCCCCTGGTCCATATTCAGTGTCTACTCAATGAGGCCAAGGAAGCCAATGGTCGTGTCCC
CAAGAGGATATCTCTCCCTCCTGAGAATCTTTCTTCATACATCTCAATTCTGAGATACA
GATTGAGAAGCACCTNAGCAAATCCACTGCATGGAAGGCAAAACAACCTTGATCCACAGC
AATTGACCACAAGCAAGGGAAGCCTGGC

Sequence 1838

CATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACACAATTG
TGCTGATTTTTCTCTCATTTAAACGGTTCNCAGTAGTTAGTCCAGGGCTGGTGTCTAT
GGCTCCATGGTCACTGGGGCATTGTGTTCTCCACGATTTCTGCTTCACCAGGCTTAGCC
TTTGCTTCCATCCTCTAGTTTGCCTCATGGCTCAAGATGGCTGCTAGAGCTCCAGCTGTC
TCTTATGCATTCTGGCTGTAGAATGGAGGAAGGAGGAAAGGTAACGGGACGCTTTACT
GGCTATTCTTGTTTTAAAGGAGCATCCTTGATCATACTTAATGAGAATCTGGAGTAATTT
CAGGAGATCTCAGAGAGGGTACCT

Sequence 1839

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGT
GTCCTTCTTCAACTGGACACCTCTAGATAAGAAGGCAAGAAATCTTAAACTTTTGCTA
ACCTAATTGTGTATGTAATTAGAATAACCAAGTTCAGTTAATTGAAACAATGAGTATTGG
AGTAAGAGTTTGGGATTTGATTCCTTAGGGATAAACTACTAAATCCAGGACAGTCATTTA
ACTGCTGCAGATTTGAGTTCCAGGGGAACCAACAGAAAGTCACACAATTTCTAGGATGA
AAACATCTCAAAAAAATCAGTCTCCAGCACTTCGGGAGGCTGAGGCANGGAGAGCAC
TTGAAGTCAGGAGTTGAAGACCAGACCAGCCAACATGGTGAAATCCCCGTCTCTATAAAA
AATACCGAAATTTAGTTGGGCCGTGGTGACCCCGTGAC

Sequence 1840

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGTTATCAGTATCTG
TCCTAAATACTGTGCTCTGACATTGATGCTAATATTCATATTATCAGGGCTTCTGTGGT
GTTTAGGCCCTCAATTTTCTCTTCAGTAAGGGGAATAACTTTGCTGTGTCAGCGCAGTG
CCTCAGGAGGGTTGCAATCTAGAAACAGTGATTGTTAAATTTGCCTATAAACACACAATA
TAAACCAATATGCCACAGACACAGAGGCCCCAGCATAGTTTCTGGAAGGTGAAGTCTCA
CCTCTGCCAGAGTAGAGTCACAGTGGGAATTGAGGCTTGGCATCTGGGTGCCTCTGAAGC
TCTTCCTGTGGCTCCTGTTAGACAATTGACCCCGAAACACAGAAGATAGAGATTGCACAT
TGCGTTCACTAATTGTTGTTTATTTATGTTATTTCTGAAAATAAAGACAGCACAGG

Sequence 1841

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGCGGTTTTTAAATCTGT
CACTGTTCTTCCCCCACTTCAAAGCTGACTTGACAACTGCATTTATTTTCATATTGCAATT
GCTGCAGGTTAATAATATTGTTTTATCAGGAAACATTTATCTTGAGGAAGAAAGTTATCC
TAATACAGCAGATAACTTATCCAAGGACAAATAGAAAGGGGACTGTGTCTAGAGGGTAAT
GCTAATGCCTGGCATGCTATAAAAAATAATGAAATCTGATTAACACTATTGGAGGGAAGA

Table 1

ATAAGTCATCGTTTCTATGAAATATTATTTTCCTGATTGGAACCATTTCCATTTTCGTCA
GCTTAAAACATTGCATTAAAGATGAGATGACTTTAAAACGGTGACAACATCTCAAGCCC
TGTGATTATAAATGGTGTTATAGGCTTGTAATCCTATGGGTTTAGACTAAAGTATTTCT
TCATAAATTGAAAGAGAAACACACTAGGAATTCAGAAGATTTTAATTAAAGTTGTTCAA
AAATTTAATGGGAATTTTAAAGGCTGGCTCACTAAGTAGTTTTGATAATGAATTTAATTT
ATAGAAAGAAAGTTCTTTGGGCAAAATTTTGGTAATGCC

Sequence 1842

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCAGANCTTAA
AGTATAATAATAAAAAATAAAGTATTACAGAACATGGTCAATTATATTAAGTAGATT
AATTAATGTCCATATACATTTTTTGGTGGAATCAAACATAATGAAAACATTTTACA
TAATTAATATTTGTTATTTTTTACTTATTAATTTATTGCAGAGATGGGAGTCTTGCTA
TGTTGCCCGAGGCTAGTCTCAAACCTCTGGCCTCAAGTAATCCTCCACCTCAATCCCCCA
AAATGCTGGGATTTTCAAGAACATGCCACTGCACTTTATTAGTGTTACCTGTCATAAAGTT
AATTACTCATAATTTTATTTTCAGTATATATATACACACACACACCACACACACCATAG
TAGAATAAATTAATTATATTTTCTACAAAAATTTTCAATCTTTTT

Sequence 1843

ATGGAGTCAGCTGCGATAGCGGCCTGACGTCCGCCGTGGTTCGATATCGCGCGCGCGCAGG
AGCAATTTACGGTTGCCCTGAATGGCCGCTTCAAGGGCGGCCATATCACGCGCCATTACG
GCCTGCCGACAAAGCGCGTGCATGCCATCCANCTGGAGATGTGCCAGTGCCTGTACATGG
ATGAAGCGGCGCCGTTCCGGCTACCGGCCTGACCTGGCCGCGCAAGTGCAGCCGCTGCTGC
NCCAGATGATGGAC

Sequence 1844

CTAAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTT
TTTTTTTTCTTTTTTTTTTTTTTGGGCAACTTTCTGGTATTACTTGTAACNCTGGTTC
CTTCAACTTTCTGATATTACTTGTAACACTGGTTCCTTNTCAACCACCGNATTCTGATT
GGGTCTATAAGTAGCAGCCAGTCCACACCACANACNCTTCTGGAGGAGGAATGCCAATG
GGGACCCTGTCTGCAATGCCTGNNGGCTNTACTACAAGCTTCACAAATNTAACAGACCCC
TGACTTTNAAAAGGAAGGCATNCANACCANAACGAAAAATGTNTAGCAATCCAAAA
AGTGCAAAAAAGTGCATGACTCACTTGGAGGACT

Sequence 1845

CCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACC
TGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCTATACGGCAACCTCC
TTTGCCAGGAATTTTATAAACATCCTGCAGGAAAATGGTAAGCCCTTGGTTAAATTTA
TTGGCTTCATTTATGTATCTCACAACACTTCTTTTCTGTTTTAGTTCTAGGAATAGAAAC
TTACTTTTGGAAATACAGTACCTGCCCG

Sequence 1846

CCGGGCAGGTACTTGCCAAGATCTCACTCCTCAGCAGCTTTTTATTTCTAAATTTAAGCT
TTTGGTTACTGAAAGTTTACAGCAGTTCTAGACTCCTATTCTTTAGCATTCCGTTACGTC
CAGACCATGTGACAACCTCCATTCTACAAATATGTAACCACAAAGAAGGTGAGTGGGGAG
GCAATAAGAACCAGACTAACAGAACATCAGAAAAGCTGGCATAACGCACACATAAAGAAG
GGGGAGAATATAGGACTATATGGGAGGGAGGAAGGTACAGAAAATGATTACGGTTTTGA
TGTTGTATTTGTGAAGGTGAGGAATACTAATATATTTCTTTAGTCTTTGAAGATCACCA
TATTTAGCCATTATTCTATCAACTGTTAAGCCTTGG

Sequence 1847

CATTTTTGTTANCANNGAAGTGAGNGGCATCTATGTATTTTTTAAGGTATATAATGAAAT
TGTGCCTAGGGGAGTNATAATTTACTCTATGTATTTNTATATNTACTTAAATCAATACAT
TCTTACAGACTANCTTCTTTAGTGGAACATACANGCCGATTTTCTCACTCCATGAATGA
TTACNGACATGTATCCANNANCGGAGGTCCCTCATCCACCATTTTACCCAGGTGTCTTGC
TCTTATCTTTCANAAGGGAAAATTTGGCTAGCNGGTTTCTCTCCACCATGTGCTGTTCTCC

Table 1

AGGGACTTTGGGTGAATCCAGGTGTGGGAAAGAAGGTAGCATCAGCTGTAAGATTCAAT
Sequence 1848

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATCTGTAATTTTGA
CATATATAATATTTAGCAGTGGGTATTTATTTCTAGATAAAATTTAAATAATAATGA
TACAGCGCAAAACGATAAAAGCTGAAAGGAAAATATGGTGAGGTATAAATGTAGAAAGGA
CAGAGATTTCTCCTCCAAATACTGTTTCTCTTGGCCCATATTTAATCATTAAATATCA
AAGATAAAATTTGAGGGCAAATAAAATATCCCACTTGGACAAAATCAGTAGTATTTCTA
TACACCAAAAACGTTCAAGATCAGCATCAAATCAAGAACATGATGTCATTCCAAATAGCC
ACAAAAGTTGAAATACCTAGGAATATGGATAACCATGGAGGTGTGAAAGATCCGCTACA
AAGAGTGCTACAAAATACTGCTGAAAGGAAATTC

Sequence 1849

CCCCGCGGTGGCGGCCGCGGCCGAGGTACATGCCAGGCACAACTGGAGTCACAGATGC
CACACTGACTATCACATTGTCATCATACTCAGAGAGAGAAAGGTGTATACACCCAGTATT
TTCTTATGTTTTCTCTATACTTCCATATCCCCACCCCATTTATCCCCGAGACATTCCCA
GTTGGAAGTCAGTTGCTTATGGGAACTGGCTGCAGGGGGATCAGCCACCTGTAACACA
CGGAAAGGCAGAGAAACAATGAGTCATGGATTTGAGTGCAAACAAGCCAGTCCTGCTAC
AGAGAGTTACGGAAAAATCTCACTGTTGAAGAGAGACATCTATAAGAGAGGTGAGGAAA
ATGACTGATANATCCTTTTACAATATTCTAGGGGTAGTCTGTCT

Sequence 1850

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTTCTGCGT
TTGTAGATGGAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCAC
CTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTTATAAACAT
CCTGCAGGAAAAATGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTGGTGTCTTG
CCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCCACCTTGCC
CAACAGTAGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAA
GTCAGCAATGTGATGGTGTGTTGGGAGGGTGGGAGCCTTCAGNAAGGTAATTAAATGCCCT
TGTAAG

Sequence 1851

CCGCGGTGGCGGCCGAGGTACAGAGAGTTCCTATAGACTCCTGCCCCCTCCACAGACAG
ACTACCCTAGAATATTGTAAAAGGATCTATCAGTCATTTTCTCACCTCTCTTATAGATG
TCTCTCTTCAACAGTGAGATTTTTCCGTAACCTCTCTGTAGCAGGACTGGGCTTGTTCG
ACTCAAATCCATGACTCATTGTTTCTCTGCCCTTTCCGTGTGTACAGGTGGGCTGATCCC
CCTGCAGCCAGTTTCCCATAGCAACTGACTTCCAACCTGGGAATGTCTCGGGGGATAATG
GGGGTGGGGATATNGAAGTATAGAGAAAACATAAGAAAAATA

Sequence 1852

TTCTAGTCACATCTGTTGTTGCAGCATGTTATCAGTAGAGCCTCCTTTTACTCTTAAAA
ATGCCCTGGTTTGGATGATCGATCATACCTGCCCCCATCCCCACCCCCCGCGTACCT

Sequence 1853

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGCAGGTACGCGGGCAT
TGGTGAAATGAGAATGAGCTACTGAAAACAAAAAGAGGGTCTTCTACTCAGCCTCTACCCC
TAATATTTATATCAGAAGCAGAGATTAAGTGTCTTACTCATTACACGTTAATGGAAGA
GAAGGAAGTTTCTAAAAAAATCCTCCCGCTCCACCCTGCAAACTTTATGTTTTCTGT
TACATAATCAGGTAGGGGCAAGACCTAACTATTTGAATTGGTGGTGTGAGGCTAAAT
TCTCTGCTATTGACAGAATTGAGAATGTGATCAATTTAGAGTAGCATGTTACAAATTTT
GTCCCAATTTCAATGGGGAGAATTATAACAAATCAGTAGGTGGNTGGCAGAATCTGTTCT
TACTTTCTCCCATCCAGT

Sequence 1854

CCGCGGTGGCGGCCGCGGCCGAGGTACCTCCTCCCTATGCATCTGCTGTGGGAAGTGT
GGGTAACACAGATGATGCCACAGGGCATGTATTCAGGCACCACAGGCAGCAGTGAATG

Table 1

AATGAAGTGAAATGGTATTTATCCATTTCTGGAAGGTCCAGGGTTTGGCTCTGCAGGG
CCAAGAGAACAGCTTTAGTTGTGCTTAACCCAGTCCTGGAGAAGCCAGCAGGCCGTAAT
CACGGGGAGGAAACCCATCTTTAAGGGCTCCTCGCTCAGGTGGTGACAAGGTGAGGTGG
TCATCTATGCTGTCTTTATCAGTATCTGTCTAAATACTGTGCTCTGACATTGATGCTAA
TATTCCATATTATCAGGGCTTCTGTGGTGTCTAGGCCTCTAATTTTTCTCTCAGTAAGG
GGAAT

Sequence 1855

CAGGTACATGTCAAAGGAAAAACACGTGAAAGATGAATTCAGCCAAACCCACCAGTGTT
AACCTCAGCCTAATCAATCTCATACTCCTAGAGGCTTAAGTATCAGCAGGTAAGATCGTG
ATGACCTGTCTNTGAGGCTCCAGACAATAATTTCTAACTGCCAACTGGAAATCCTTATAT
GGTTAGGCTGCCAACATCCCANGGAACAGGACCAAAATAAAAAGCATCACTCATTATCCT
ACTGCAATTTTCCCTTTCCCTTTGTCAAATGGGAATGATCTTTACNATCATGATCCTTNA
TTGCANCCAGNACAGAAATCATGAATGTCATCTATGGCCCTTNCATCACTCCGGGCTC
CAATTAGTTGTCCTAT

Sequence 1856

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGA
GCTCCCATTTCCCCACATCCTGGATGATACATGTTATTTAGACATTCTAATTTCTTTCC
AATCCAGTAAGAACGACATGGCAACTCATTATATTCATTTGCATCCACTCTATTGCTATT
GAGATTAAGGGCTTTTACTGTTTTCTTATATTTCTTGGCCACATGGCTTCATTTCTGT
GAATTGCCTTTCTTATGGTCCCTTCATGGTTAAACAGCCCTTTAGAAGACTCGGATTTT
AAGGTTGGATTAGGGGTTGGGATTTGAGAGTTTACACCATGGCCATGCCTCGTTCCCT
AAGTTATCATTAATGCTCAGCCTCCACAGCCCATATCCATGCATATCAACCAGGTTGT
CCGAGAACATTCAAGAACTTACTGCTCTTGCTTTGAAT

Sequence 1857

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGAGT
GACTAAATTTGTAGGAATGATATTTTCATGGGATTACTCAATCTCACCACCATTAGTTG
CAGGTGACAAGAAAGCTAAGTTGGCAGATGTTTGTGCTAGAAGCTGTGGGTTTACGTCTC
CTTTGTGCATGTGTTCCAGACATACCAAGTGGCTTGGTATTTAAACATCATGCTCAGGTGT
GCAGGGTAGTTTTGAGTTATAATANGTATGCAGGCGCTGTGGGATTACTTGGTTGTTTA
TGTAATAATTATTTGCACTCACTTCTGAAATGAGTGTTAGTAGAATCATCTTTAGAGGA
GGTTCCAAGGCATTGAACTGAGATACCTGCACTGTTTGTGTAAATTTAAGCTTAAAT
GAAACCAGGTTATCAGCATTTTCATGCCAGGAGAGAGTGGGCATGAATGATTTCAGGAAAT
GAAGAG

Sequence 1858

CCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGTAAGTTTAAATCAAAGCAAGANAT
ATGATACTTGCACTCANAAAGCAGCAGGACTTCGGTGGGTTGGAACGCAACTCTTCTTG
CTGTTGTCCCAGGTGATTTTTCATCAACCAAGTCTTAGATCAATCAATTACACAAATATG
ACACTATTACATCTTCTCTGGAGTTATCTTCTGTTGGTCTAATACTCAGATGCTTCT
GAGCCACGCAAAGTAAAAGCCCCAGGTNGAATATCCATGAGATGGGACTGATTGTGCTTC
CATGGTTTACCTATCTCAGTGGCCTGCCCTCCTGGCCCTGTGAAATCAGTTTGAAACTT
GCCCTTCTTCTCCTCCTGGTGGTCTTATTAA

Sequence 1859

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGACGCGGGAGTTTTTC
AGAATCAGGCCTGCTTTGTCCCTAAATGCTTTCTTATTTCCCGAGGCCCTTATTGGATT
TAAGCCCCATATCATATCTCACATACCTGAGACAGACATACCACAGTGAACCCTGCATGT
CCTTGTAAGTTCTTTTCCGTGCCTAGAAGTTGCAGAAGACCAAGGAACCTTGGAAGTGA
CTTACTCTTTTGCTTCATAAAGTTGCTTTAAACAGCCTTTATTTAATTATTAACAAGG
TATGTCACACATTTTAAATTTTAAAGTTAATTTAGTCATTAATCTGTCAAACAAGTGT
TCTTTGGAAGCTAGTTGTCTTCAATGTCTTTTACTTGGAGTTACTGAAGTTTGCTTAA

Table 1

CTTTATTCACCTTGGAGTAGAACTTCC

Sequence 1860

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAGGTTCAAATAGTCAGCAGCTCATCATAATC
AATGAGCGAGGACATAAAGTAGGAAAAATGCATCACCATGGTGGGCAAGGAAAGCAAGTT
ATTGGAGGCACATGTTAACACATAAAATATAAAATTAATATGATCACCCTGGAAAGGCT
TGCCTGAGCCACAGTTTGAATGCCTACAATAAGATGAGATGCACAACAAAAAGCAAGAG
AACCTGATCAAGTGGGTGACCTGGCCATGGTGTCTCATCAGTGGGGACCCAAATGCTTA
TGTGGACTCACCAGGTATCGAATTAGACATGAATAGGGAGTGTTTGTGTGATGGCAAGA
AACTATATAATCAAATGAATACAATGAACTTTAAAAATAATTGTAAGGAATCTTACAC
CAGC

Sequence 1861

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTAAACATTTTTTCC
TTGAGAAATCATTGCCTAAATCTCATACATATGTGCTTCTCTGCAGAAAAAAATGAA
ATAAAATAAAAACTTTATTTCCAATGAGCTAATGAGGAAAAAGGGGATGATGAAAAAC
AGGGAGGTGGGAAGCAATTGGAAATGAAAAGAAATGCTGAATACCTACATGATGCCTAAT
TTAGAAGAACATTCTGGTATGTAGGACATTATTTTCAACTCTATCACTTACCGGCAGATT
TTTTTTATATGCAGATGTATCTCTACTCTCTAAAGATGTACATGTGTACACTTATAGTT
GAGAGCCAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAACAAAAAGGAG
GGTCTTCTACTCAGCCTCTACCCCT

Sequence 1862

TATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACACT
GCACACCACAGGGTGGCTGCACCTTTTTGGGTGGTGGGGTGGGGATGGGGGCAGGTATGAT
CAATCATCCAAACCANGGCATTTTTAAGAGTAAAAGGAGGCTCTACTGATAACATGCTGC
AACACAGATTTNANNTAGGAACTGGCCCGCTCTANNAACTANT

Sequence 1863

CCGCGGTGGCGGCCCGAGGTACGCGGGGTGAAGGGCTCTCTGTATACTGCTGAAGATTCTA
TAGTTTCTCCTGAAATCCATGAGGGAGCCCCCTGAAGGATTTTGGCCAGNAAAGTGTCAT
GAATCAAATTTCTATTTTAAGAATAGTATCGAGGCAGCAATGTCAAAGTTTGGTTTANAA
AATANGGATGGTTCCTGTAATCCAGAAGTTTGGAGACCAAGGCGGGAGGATTGCTTGA
GTCCAGGAATTTGAGTCCAGCCTGGGCAACATGGTGAGACCTCATCTCTGCCAAAAAAA
ANNNNAAAAAAGGTCCCTGCCCG

Sequence 1864

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGCCATTGAGACTGCCAT
GGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCT
CTTGACAAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAA
GACTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGAT
TCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCT
GGACAAGATTTTACTCCCATACCCAGGCAGAAGTACCT

Sequence 1865

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGG
AAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACT
TGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACTATTATAAACATCCTGCAGGAA
AATGCAGTGAAGTAGAAGAGACAGGGGATATCCAGAAGGTTATGCAAAACATCAAGAGA
AGATGAGAGGTGAGAGATGGGAAGAAACAAGAAGTTTACATGCTTGGTGTCTTGCCCA
AGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAAC
AGTAGAAAAAANNAANAAAAAAGGTTCTGCCCCG

Sequence 1866

GGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGTATTTAAAGGAGGAAAGAGCGATG
AATCTACATGGAAAATTAGGTGAAGGAGTGGAATTTGCATCGGCCATATAAGTCCAAC

Table 1

ACATATGGATCTATTCCTCCATGAAAACTGGAAATTCACTTTAACATGGTATTTGCAC
AGTCAGCAGCAATTCCTAACAAATGCTTTCTTGCTGCTGACATCATATTTTTTACCCCA
ATAATAGAGGATAATTTGGACCCCTTCTGCTTTTCATTTAATTCTGTCTATTTCTGATTG
CACTTCTCCTACTTCTCTTCCCACATGAGAGATGATTGTATTACTTGTGGAATATGATGA
ATCACTTCAACAAGAAATATGTGGCATCTGGTTAAGTTTCTTCTAGCATATAAATTAAG
CTTGAATCACAGCTGGGTCAAACATTTTCTTTGAAACGGG

Sequence 1867

ATCGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTATAGT
TGAGAGCCAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAACAAAAAGAG
GGTCTTCTACTCAGCCTCTACCCCTAATATTTATATCAGAAGCAGAGATTAAGTGTCTT
ACTCATTACACGTTAATGGAAGAGAAGGAAGTTTCTAGAAAAATCCTCCCGCTCCACC
CTGCAAACTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAAACTATTTTG
AATTGGTGGTGTGAGGCTAAATTCTCTGCTATTGACAGAATTGAGAATGTGATCAATTT
CAGAGTAGCATGTTACAAATTTTGCCCAATTTCAATGGGGAGAATTATAACAAATCAGT
AGTGGTTGGCAGAATCTGTTCTTACTTTCTCCCATCCAGTGACTAGGATTTGAAAGCA
GTGTTTT

Sequence 1868

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTATAGTTGAGAG
CCAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAACAAAAAGAGGGTCTT
CTACTCAGCCTCTACCCCTAATATTTATATCAGAAGCAGAGATTAAGTGTCTTACTCAT
TCACACGTTAATGGAAGAGAAGGAAGTTTCTAGAAAAATCCTCCCGCTCCACCCTGCAA
ACTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAACTATTTTGAATTGG
TGGTGTGAGGCTAAATTCTCTGCTATTGACAGAATTGAGAATGTGATCAATTTAGAGT
AGCATGTTACAAATTTTGCCCAATTTCAATGGGGAGAATTATAACAAATCANTAGTGGT
TGGCAGAATCTGTTCTTACTTTCTCCCTCCAGTGACTAGGGATTTGGAAGC

Sequence 1869

CGTATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGT
ACTTTTTTTTTTTTTTTTTTTTGCAGAGATGAGGTCTCACCATGTTGCCAGGCTGGAC
TCAAATTCCTGGACTCAAGCAATCCTCCCGCCTTGGTCTCCAAAAGTTCTGGGATTACAG
GAACCATCCTATTTTCTAAACAACTTTGACATTGCTGCCTCGATACTATTCTTAAATA
NAAATTTGATTCATGACACTTTCTGGCCAAAATCCTTCAGGGGGCTCCCTCATGGATT
CAGGAGAACTATAGAATCTTCAGCAGTATACAGAGAGCCCTTCACCCCGGTACCT

Sequence 1870

CCGGGCAGGTACACAAAAAATGCCCATTTATCCCTTTGCTGTGGGAGCAGTGCTGATGC
TAGTGGCTCGCTCTTTGGTCTGGCTCTGACTCCACCAGCAGTAACAACCAGCAGTGGTG
GAGGCTGTGGGTGCAATAGACTTTTATCATGGCCACTCTTCTGGAAGATGTCACTGCCAG
CAACTCCTGACTCAGCTTTGGCAGCAGCTGCCGCATCGAAGACTGTTGTGAGTGGGGAA
GGTAATGGGGCTGCAGGAATGTGAGGATGTAGGGACTTTGGGACCTCCAAGGCAGGATGC
AGTCTAGACCTCCAAGGCTTGGCTTTCAAATGGCACC

Sequence 1871

CCGGGCAGGTACTTGCCAAGATCTCACTCCTCAGCAGCTTTTTATTTCTAAATTTAAGCT
TTTGGTTACTGAAAGTTTACAGCAGTCTAGACTCCTATTCTTTAGCATTCCGTTACGTC
CAGACCATGTGACAACCTCCATTCTACAAATATGTAACCACAAAGAAGGTGAGTGGGGAG
GCAATAAGAACCAGACTAACAGAACATCAGAAAAGCTGGCATAACGCACACATAAAGAAG
GGGGAGAATATAGGACTATATGGGAGGGAGGAAGGTCACAGAAAATGATTACGGTTTTGA
TGTTGTATTTGTGAAGGTGAGGAATACTAATATATTTCTTTAGTCTTTG

Sequence 1872

AGGTACGCGGGGGTATTTAAAGGAGGAAAGAGCGATGAATCTACATGGAAAATTAGGTGA
AGGAGTGGAATTTGCATCGGCCATATAAGTCCAACCTACATATGGATCTATTCTCCATG

Table 1

AAAACTGGAAATTTCACTTTAACATGGTATTTGCACAGTCAGCAGCAATTCCTTAACAAT
GTCTTTCTTGCTGCTGACATCATATTTTTTACCCCCAATAATAGAGGATAATTTGGACCC
TTTCTGCTTTTCATTTAATTCGTCTATTTCTGATTGCACTTCTCCTACTTCTCTTCCCA
CATGAGAGATGATTGTATTACTTGTGGAATATGATGAATCACTTC

Sequence 1873

AGGTACGCGGGGTCCAGTGGACGCCAGGGATCTGAAGGGCAAAGGCAAGGGCTGCTGGAG
CCTGCATCATGTGAGTCCGCAGAGGAGGAAGGCTATGCCCTGGGCACTGTCACTGCTTC
TCATGGGCTTCCAGCTCCTGGTGACTTAT

Sequence 1874

CCGCGGTGGCGGCCCGCCCGGGCAGGTACAGAAAACTCATTTAGTTAAGGGGAAAAAAA
GAGTAAGTGAGCCAGGATTACAGTCCAATCCAGTCAAAGTTAGTATAAGAAATAAGAGA
ATAAATAGATCAACATCCTCACAGACAATGAAAGCACACCGGAAGGACATGACCACAAGG
CAGATAAAACCTAATATTTGCCAAAAATAAAATGCAAATATGACAGGAAATTTATATT
AATTAGTACCT

Sequence 1875

CCGGGCAGGTACCAAAAGAATGTTTCATAGCAGCATTATTTGTCATAGTCAAGAGCTGGAA
GCAACCCAGTTGTGCATCAATGGTAGAATGGATGACTAAATGTAGTGTATTCTTACAAT
AAAATACTATAGAGCAATGAAAATAAATAAACTATGGCTATATGCAACAACATGGATAAA
TCTTACCAACAATGTTAGACAAATGTAGCCAAACCAAAAAATACACATGTTCTATGAATC
CATATATGCAAGGTTACAATAGGTGATAGTAGCTACTCTTTTGGGAAGGAGTGAGGAAA
GGACTGAGAGAGTATTGCAGAGGGGGCTCCGGGTGTTTGTA

Sequence 1876

CCGGGCAGGTACTTTCTTGCCAGACATCATACATCTGCCTCTATAGAATCCCTCATTCA
GGGGGTCACTGATGAAGTGTAAGGCCCTAGGGTTGAGCTTCAGCTCCACTGTGGGGTAGG
TTTTTACCTTCTCCAAAGCTTCATTTTCTCATTTGTAAATGCAGATAATGTGTGCTTG
CCAAACTCTAAGGGCTGTTGTAAGAGGTTTAAATGGCATAACAGATAGAAATGATTCAAG
CTATTAAGTCCTTTATAAATGTGTGGAATGTTGTTTCTCTGTATAAATCTTAGCTTTCT
ATTATCTCAACAAAGGTGATTTCTTGTTAAGAAGGTTAGTAGCCAGGCATTGGACAAC
T

Sequence 1877

CCGGGCAGGTACTTAGGACTATGGAGAAACAATGGAAGACATTAATTCTGCTTGTCTTGA
TGGAAGGGTGGGGATGAAAATACAGATCGAATTTGGGGGAGCATGTTAAGGTTAGGGGA
ATAGAGATAGCTTATATTTAGAACAAGTTAGTAGAGACTGTATGATTTCCAAATAGAGA
AGGGTAAAAAGACATTCCATAGAGGAAGAAAATTACATGCAAAACCACAGAGACCTTAGT
TTATAAAGAGTAACTGGGTATGGCCGGGTGCGGTGGCTCACGCCTGTAATCCCGGCACTT
TGAGAGGCTGAGGAGGGTTGATCATGAGGTCAGGAGA

Sequence 1878

AGGTACTTCTGCCTGGGTATGGGAGTAAATCTTGTCAGGGACATCCCAGGGAAGGTG
AACTTGCCCAGGCAGATGCGATAGACAGCGCTCAGAGGAATCCGCTGCAGCTGCACACAA
CTCAGCATGATGAAGTCGTATTTGCAGATCAAGAGAGTCTTGCTGTGACCAGTAGAATT
CTCTCCTTCTCATTGTTCCAGTGGTCTATCTTTGTCAAGAGCCAGAAGCCTGAATGGTC
TCTCCAGAAGTCTCAGCTACGTGACCTTTCAAGTCTTCCATGGCAGTCTCAATGGCCCC

Sequence 1879

AGGTACCCAAGCCAGAAAGTGAGCCCACTCTGACTCTCATGAACTGGGTCTGATTCCCT
TAAGGTTATTTTGCCTAAGTATATTTCACTCTGGCCTCTCCTTTCCATGCCCACTGCAA
CCACCAAATGTGCCACATCCCACCCAGATAAGTACCTGCCCG

Sequence 1880

CCGGGCAGGTACGCGGGGAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTATAAACATCCTGCAGGAAAA

Table 1

TGCAGTGAAGTAGAAGAGACAGGGATATCCANAAGGTTATGCAAAACATCAAGAGAAGA
TGAGAGGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTGGTGTTCTTGCCCAAGC
TTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGT
AGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGC

Sequence 1881

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGCACGTGCAGAAAAGAAAGA
GTCTCCGCTTGTCTTTGTCTGATTCTCCTGTCTCTCCATGGAAGTTACATTTTCTGTAA
AGGATGAGCTGAAAATTCTCCTGGTCGTTGCCAGTTGAACTTCTGCTGTGCTCTGGGAAG
GCATTCTCACTCTGTTTATGTTGTCTAAGTGCANACATGGATGTGCAGGTTTGCTAGAAC
CTCCTGAGGATGTGCAATGGTCTGTTTCATGCCTGAATCAGTCTTTTGGGAGTGACAT
TCTTTCTCTCCCTCATGCACAGCCTCAGGCACATGGCTTGAGCTATGGCGGCACGCAGNA
TGGCCATCACCCAGGTACCTGC

Sequence 1882

AGGTACACTTATAGTTGAGAGCCAAGTCTCCCTTATCATTGGTGAATGAGAATGAGCTAC
TGAAAACAAAAAGAGGGTCTTCTACTCAGCCTCTACCCCTAATTTATATCAGAAGCAG
AGATTAAGTGTCTTACTCATTACACGTTAATGGGAAGAGAAGGAAGTTTCTAGAAAA
ATCCTCCCGCTCCACCCTGCAAACTTTATGCTTTTCTGTTACATAATCAGGCAGGGGCAA
GACCTAAACTATTTGAATTGGTGGTGTGAGGCTAAATCTCTGCTATTGACAGAATTG
AGAATGTGATCAATTTAGAGTAGCATGTTACAAATTTGTCCCAATTTCAATGGGGAGA
ATTATAACAAATCAGTAGTGGTTGGCAGAATCTGTTCTTACTTTCTCCCATCCAGTGAC
TAGGATTTG

Sequence 1883

GGCGGCGGCCGAGGTACAGTGGTTTACGCCTGTTAATACTATGCACCTTGGGANNNGAG
GATTACAGGCGTGACCCACCGCGCCAGACCACTTGCAAATATTTACAGAGCCAATGTGT
AAGTTGAGTGGTGCAAGGACATGAAGTTACCCAAGGCTTAACAGTTGATAGATAATGGC
TAAATATGGTGATCTTCAAAGACTAAAGAAATATAGTTAGTATTCCTCACCTTCACAAAT
ACAACATCAAAACCGTAATCATTTTCTGTGACCTTCCTCCCTCCCATATAGTCCTATATT
CTCCCCCTTCTTTATGTGTGCGTATGCCAGCTTTTCTGATGTTCTGTTAGTCTGGGTTCT
TATTGCCCTCCCACTCACCTTCTTTGTGGTTACATATTTGTAGAATGGAGGTTGTACAT
GGTCTGGGACGTAACGGAA

Sequence 1884

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGG
TAGAACAGGCGATATCTTCACCATGCGCACAAATGAAATCAATACTCAGAGAAGGCAGATA
ATTCTCCACGAAGCCAGAAAACATAAATGAACAACCTGGGTGAAATGTCCACCAGAC
GGTGTGATATTTAGTAGCCCAGAAAGCTGCCAAGGGGTTGAATGACACTATCTGAAGATA
TGAACCAGTTTGCTCTCCATAGGGAGGATTCATCAACAGGAAACAGATGCCTGGAAGGC
ATTGGATTTGCTAAGTGTCTATGCCATATGATTCTGCTGTTTGCGTTTGATTAGAAATGC
TGAGCTGACTCAAAGTCAAACGTAAAGTACCT

Sequence 1885

ANGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCGCCCGGGCAGGTACTGTTACTAT
CCTTAAGATGAGGGAAGTGAAGAACCAAGAGGTTAAGCAATTTGCCTTTGGTTCACATAG
CTAATGATGTGGAGATTTGAACCTTAGGCTGTTTGTCTCCCAAGCCTATGTTCTTAAATTT
GGGGAAATAGTAAAGATAATTTCCACAATGTGAAGACAGTTAGCAGCCTTAAGGATGAAA
GGATGGTGCAAATACCATGCCAGTGAGTGACAGAGTATCAAGGCTGGTAGAGCCTGATG
AAAGCACAAAGTTTTCAGAAAAGAGGGAAACAACAATTCCTATAAAGTTAAGAAAATCAC
ATTGACACCAGACTTCTCATTGGTAGAGACCACAAAGCCCTTTTCAAAGTGGGTCAAAC
TGGCAGGCTGAGCACATATCCTTCCCTCCCTTTCTG

Sequence 1886

CTCCTATAGGGCGTTTTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAAAAGA

Table 1

ATGTTTCATAGCAGCATTATTTGTTCATAGTCAAGAGCTGGAAGCAACCCAGTTGTGCATCA
ATGGTAGAATGGATGACTAAATTGTAGTGTATTCTTACAATAAAATACTATAGAGCAATG
AAAATAAATAAACTATGGCTATATGCAACAACATGGATAAATCTTACCAACAATGTTAGA
CAAATGTAGCCAAACCAAAAAATACACATGTTCTATGAATCCATATATGCAAGGTTTACA
ATAGGTGATAGTAGCTACTCTTTTGGGAAGGAGTGAGGAAAGGACTGAGAGAGTATTGCA
GAGGGGGCTCCGGGTGTTTGTAAATTTCTATTTCCCAGTGAGGTGTGGTTTGCATGAGCA
TGTTCACTTTGTGGAAATTCATTGAGCTGTAATAAATATACAGAATTATTTN

Sequence 1887

CCGCGGTGGCGGCCCGAGGTACTTTTTTTTTTTTTTTTTTTTGTGTTGTTGTTTTTTT
TTGAGACAGAGTCTCGTTCTGTCAACCCAGACTGGAGTGCAGTGGTGCGATCTCGGCTCAC
TGCAACCTCTGGGCTGGGCAACGGTGTGAGACTTGGACTCAAAACACACACACACACA
CACACGAAGCGGGAAAAATTTCTGGTGCTTCGCAAAGTCATCACAATACAAATCAAAATAA
ATTTGTCTTAAGCCACTTAGACAATACTAACCAACTTTCACCAGGTGTAATCCATGCACA
ACCAAAACCTTTTACTGTGAGAGCGAAGCTCTTATGGAGTTCTACCCTCATCAGNGATCT
CCATTATAAGGATATAAAAGACTAGTAGATTCTATTCATGAAACCATTTTTCTTGGCTTG
GTATTAATTTTGGTAAGAGATGAGTTACCAAGTTAGAAATTAGTGTGGTCCCAATTAA

Sequence 1888

CCGCGGTGGCGGCCCGGCCCGGCGAGGTACTTTNTTTTTTTTTTTTTTTTTTTTTAT
TTTTNGAGACAGCTTTCTATTCTGTCAACCCAGGCTGGAGGCCATTANAAAATAATTTGTG
CTGTTCTTATAAATATGAAGAACTTTGGAAATATCTNTGTGACATCGGATGCAGTTTGTG
TTTGGGAAGTATCACTGATAAGAAATAATACTAAAAATTAGCAACCCCATTTGAAAAGTGG
GCAAAGGACATGAACAGACACTTTTCAAAGAAAAAATTCATGCANCCAACAAATATATG
ACAAACAGCTCAACATCACTGATCATTAAGAAATGCNAATCAAAANCCNCATTGNGATC
CATCTCACTCCAGTCAGAACCACCAT

Sequence 1889

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACTGTATTTCCAAAAG
TAAGTTTCTATTCTAGAACTAAAACAGAAAAGAAGTGTGTGAGATACATAAATGAAGC
CAATAAATTTAACCAAGGGCTTACCATTTTCTGCAAGGATGTTTATAAATAGTTCTTGGC
AAAGGAGGTTGCCGTATAGGGTCCACAGTAACCTAGGTGGCAGCATCTCCTCCAGCG
TCAGGTCTAAGCACACAAGTTCTCCCGGTACCTGCCCG

Sequence 1890

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGCCGAGGTACAAGCTTTAAATG
GGAATAAATCTTTTATAAGCCTTTCCATTTACTTTCTGCTTATTAAAGGTGAATTGTAA
TGGAACCCCTAAATGTCACAGAGTCTGGAAAATTGAAATAATAAGGGGCAGCATTCTCC
TTAAGTGGTATAACCTAGTAAAAAGTGGGCCTAATGGAAAGTCCACCGTGGAAATCATCTG
TGTTTCTATGCAACAAAATTATTTCTTCTTTCTCTAACAAGGAAGTAGTCTGACCA
ACAAGGTTGGCTGTCTTAANCATTGNGGTGGAGAGCAATGGAAGATGAGTGTGTAGTGG
GAG

Sequence 1891

CGAGGTACGTAGGGGCCCTTTGCTGCAAGCTTAGGCCAGTGTGAGCTCCTGAGCCACTCC
TGACTCAGTTGGAGGAGACTCAGTGTCCACTGCCCCCTGCCTGGTGGAGCTTGGCAGCAA
GTCCCAAGTTTTACAGTGTGAGACCAAGTGGGCAGCCATCACCATTGAGGGGTGCCCTT
TTGCTCCCCCTCGAGTCCAAGTTATAGTATTGCTTACTTCTACCTGAAATAGTTTATGG
GTCATGGGTCCGGCTTACATCAAGCCCATAGCCAGTCTGGTTGCCCCACCTAAGGTCTT
GGTGCTCTTTGATAATAGCCACAAGCTTAAATGTATTAAGTCTGTCTAGGAAATGCAT
GATCTTCTGCTCTAGAACTAAGTG

Sequence 1892

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGNCCGGGCAGGTACAAGGG

0

Table 1

GAGACAGCATGCATGGTGTGNTCAGAAGAGCTTGCTGAGGTGCTCGGCTCTTANCGTTAA
AAATGTGATGTTGGTATATCATCCTGATAGAAANCACTGCTTCCCAAATNCTAGTCACTG
GATGGGAGGAAAGTNANNAACAGATTCTTCCGACTCACTACTGANITGTTTATANTACTT
CCCCATTTGAAATTTGGGACAATTANTTTGNGGGCATNGCTACTCTG

Sequence 1893

GNCCGGCCAGGTACTGCCACAGGACTTTCAAAAAGGAGGGGGAAAATTAATGAAAGTGAC
ATGCATCAAACAAATCAAGGGGCAGTGTTGAGGTCACTCTCCACGGAGCTGTAAACTCAGA
AGTGTTTCCTGGTCATATATGGTCAATTANGGTCAAGTCTGAAATAAATNTANAANAATG
ACCTAATTTTCCAGCTTAACTCAGNAGCTAAAAATCCATAACACTATCANACTTTCCCTTTT
AATTTATGAGATGGAGTCTTGCTCTTGTCGCCAGGTTGGAGTACCTCGGCCGCTCTAGA
ACTAGTG

Sequence 1894

AACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCAAC
CACCAGGGCCCTTGCTTCTGAGCAGGAAGCAGCTGGGGAATAGGCTCTTCTCTTAATGA
CTTCCAACATAGTTCTCTCAAACCTTACTCCTCCAGAAGGCCACCCTCACCTGGCTATGG
CTACTTCAGAAAAAACTTGGCCTCTGGTATAATAGAGCAGAATCATCACCTCACATTCTA
TTTCAAGCCAAAGTCAATATCTCAAAGGCTGGTCTGTGATTTATTTGGCCCTTGGGAGC
TCCTACTGAAAGTGCTGAAATGTCGTACCT

Sequence 1895

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCNNGGTCTTTAAAAAC
TNGGGGGCCNTAGGATTCATTTTAACCATTTCTTGCTCACTCTCACTCTGTCACTATGT
GGAGTGCTCTAATCCATTAGGGAATATAGCTCCTATATCACTGGCTACCCAAATGGACCT
CAAAAAGGCAGACAGAGCCCATCCCCAGAATATCCTTGGTCTTGCTGGTCACAAGGACC
AATAACATCATTAACATTGATGTTTCAGAGTCAATACAGGTATAAGAACCTTAGGTTTAG
GACTGTGAATAGGGGAGCGGTGAAATGAAAATACGGCCTTGAATTAGTTTCACTGTCAAC
ATATCTCATATTTATCTAGCTAGGGTATTTTAATTCTAGGGTATGTTATGTCCAGAAGAG
AGGAATGATTTT

Sequence 1896

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCTCGAGCGGCCGCCCGGGCAGGTACTC
TTTATGCACATCAGTGTGGGGCCTTAGTAACCACTGTGCAAGTTGAACTGGGCAAAAGTT
ATCTTAATAATTAATGGGAAAACATAAATCTTCTGCAATCTTTAAAGACACTTGTCA
GTCAGGTGCGGTGGCTCACGCCGGTAATTCAGCACTTTGAGAGGCCAAGGTGGGCGGAT
CACTTGAGCCAGGGGTTTGAGAACAGTTTGGGCAGCATGACGGAACCCTGTCTCTACAA
AGACTACGAAGGGTTGGCCGGGAGTGGTGACATGTGCCTATAGTCCCCG

Sequence 1897

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCTCTAGC
TGATGATTCAAAAAAGAAGCCTTTTAATCTCACTCCACTGATCAGCTATGATACTTAAAT
GTTTTAGCTGTGAGCAAAATAATATGCATTCTCAAAGAGAGTATCTTCAGACTCCAGTGG
CCGAGAATCTAGAGTTAGCAATGGAAAAAATTAGTCTCGGGGCTTCTGTTTCTGCCCA
CAAGTTTCAAATTAAGAACAATGTGTTTGCACCTTAATGAAACAACCTCTACTGCTCTTC
AAGAGGACTCAGGATACCGATTCTCGAGGCCCTGGCGGTCCCCTGTAAGTACCT

Sequence 1898

CCCGGGTGGCGGCCGAGGTACAGATAGAGTCTCACTATATTGCCTAGGCTGACAGAGTAT
TTTTTCCCTTAATTATTCTTTATTCTCAAATGCAGTGAACAGTCACAGTAGCCACCATA
GGGGGTTTCAATTTTCAACATTACAGTAACTAGGGGAATTTTATTAAGGAACCAGCNGCTT
AACCNTANTNGGTANTAATTCTTCTTTTTTAAACCAACCTCCAGAANTTNATTCAGAA
TTCATCAGTCTTCCCNATCAGGTGGCTTGTCTTTTCTNNGTCCCATGGATCCAATGTAN
GGAATTCACAATCACAAGTTAAGTNTTTTTAATCACTTCTTANGNNCCTNCTCCCCACT
TCTGGGGATGGGTTTCCCTCANNTAATCCTCTTTTGGTCTTTCCAGGGGAACCCTGGAC

Table 1

CACCTTTTNGAAAAGGAAGGTTANTTNGGGAACCAGGCCTTTTTTTTT

Sequence 1899

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTATTAA
ATTTAATGAGAGGTAACCCATGCACCGGCAGAAAGTTCAAGGGGACAGAAGGGGCTTGCT
CCACTCTGGAGCCCTATCTCCTCTCACCTCCTTCTTAGTTGACATGCCATCTTGTC
TCTCTCTTTTATAAAGTGCTTCCAGGCCNTTTTGATTAAGGATGCTGTCTAAATCCT
TCCTCCCGCGTACCTCGGGC

Sequence 1900

TGGTGGCGGCCGCCCGGGCAGGTACTACAGGGGCAGGCTACCGTCCCCGGCTAATTATTT
TAATTTTAAATTTTAGTAGAGATGAGGTATGCTGTGTGGCCAGGCTGGTCTCGAACTT
CTTGGGCTCAAGAGATCCTCCTGCCTTGGCCTCTCAGATTGCTGGGATTATAGNGTGAG
CCACCNACACCTGGCCTATGATCTTAACCTTTATTTACCACCTTTTTGACATTTGCCAAA
ACTAAGTTTTACAAGATCTCTCACCATATCTCTGGGGATGGGAGGAGGAAGGAAGGATA
ATGGTCTCATATTCATAATAGTATTTGCAGTGCCTATTCTCACAGTTGATAAATGACTAT
AACCTTTTCAAGAGGATGAGTGAAAGAAAGAGGGAGGCAAGAANAATGAAAAGGAGGTA
A

Sequence 1901

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTGTTGTTGTGT
TTAGAGAGACAGGGCCTTGCTCTTTTGGCCATGCTGGTCTCAAACCTCTGAGCTCAAGC
AGTCTCTGCCTCAGCATCCCAAGTAGCTGGGACTACAGGCCTAATACTTTTTGTGCCTG
CTCCTCTCTTCTGTTTCTACCCCATCATTATCTGCTCAGATCTTCTTAATCACTACTG
CAGCAACCTGCTAAAATGTCTCTCAATCTTCTGGGATAAGTCAATCAACTGCTAAATGAA
TCTTCCCTAAATTTTACTTTTATTGAGTTCTTCTGCTCAGAAACCTATTTTTACTTCTTT
CTAAGTCTCAGCATGGTATTTCTTCTTCTATGTTAATTGACAGTCTGTCTTAAATAT
GAAGTGTCTATTCTGCTCTTCTTCCCTCAAACCCAACTCAC

Sequence 1902

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACATTATCTAAGATGA
TACCTATAAGGCAGATAGTATTATCCCCATTTTACAGATGCAGAAATTGAGTATCAAAGT
GGTTAACTTGAATAATGTCAAGCAGCTAGTCAGTGGTGGCAGTGGAATGTGAATCCAGGA
AGTCTGACACAAAAACAAGTGGTCTTAATGCTATAACATGCTTAATGCTAAGAAAAAGTG
GACAGTATAATGCTATACTGTTCTGAATAAATATCCAGTAAATAAGGAAGGCTAGAAGA
ACACAAAGTTTGTAAACAACATGTTTTCTAGTAGAAGTCTTCTTTGCTGACTTTCTGATT
CTCAGGTATAGCATCAATCGGTGAGGGTTGCTATATGGTAAACATTATACTGACAGGCCA
AAGCGATCAACTGTGAAAACCTAGGCCAAAGCCAAAGTA

Sequence 1903

CCGCGGTGGCGGCCGAGGTACAGCTTGAACAAATCCACCTTCTGTGGACCAAGCACCACC
CTGGGCATTTCTAGCATGAGCAAAATCCAAGGTCTGGCTGGACTCCAGAGATGCTATTT
ACCTCAGAAGCATGACAATAGGAGGCAGAAGGAGCAGGCAAATCCAAGTCTTTCTTGTA
GTTTCTTGTTTGGGGAGGAAAAGTTGAGTTTTACTATTATGAAAAGAAACAGGAAATA
GAGACAGACAAAGAGATATGACAATACAGTCTGCCACCCAGATACTCATTCCACCTAC
CATTCCATGCATTTGTTTTGAATATATAAGTATGTACCTGCCCC

Sequence 1904

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTGCTTTATTTTTTCATG
AGACATAATCATGTCTTATTATAAATTTGCCAAGCAGGGGATAATATCTGACATACATG
CTACCTGTTATTGTGTAATTTGAAAATATTCTATCTTACCAGTTGTTACAATTAATATA
TTATACTGATAATTTATTTTTTCAGACATTGACATAATAAAGTTTTATTTGAAATATATC
TTAATCAATAAATATAAAACAGAAACCACTCTAATAGAGGACAATTGTTCTAGTCAATAC
TCATATTTGTTCTGACTATTGAGAAAAATTATGTCTGCATTTTAAAAGTTTCAAATTTTG
AAGCTTCAGATTTTAGAATAGGGATT

Table 1

Sequence 1905

CCGCGGTGGCGGCCGAGGTACGCGGGGAGACGGCATCTGAACCTTGCCGAGTAGGAATGT
TCCAGAAGTAAGAGAGATGACTAGGGTTTCAAGAACAAGGACCAGCACCTATGAAGGCTC
TGAGGCACAGACCACTGTGACCTGTGGAGAAGTGACAGCAAAGTGAAAGGCACGTTTTGA
TTACTACCGACATTCACAGTCTGGACACGGGTGACAAATCTAAAAGATATTGCCCATTCG
TCCAAC TGCCGCTGTCTGCCAGTATATCGTCTGAGATTACCATCAGCTAAATATTGCAT
TGCTTTGGACAATTTTCTACATTGTGACTCCTCACTACATTTTCAATGCTTTTCTAGT
CCGAGACAAGCTACAGACTGTTAATTTACACTTGCTTTTGCCTTGCCCTGAGGAAATTGAA
AATAAATT

Sequence 1906

AGGTACTTACAAC TTTTCATATAGTATTGGTAGTGT TTTGAATAATTTAAAAATCATCT
TAGGTTTGTTATTTAACTTTATTTATATAGTGCTTGATTAATGATTTTGTGAATGTTTT
TTAAAGATGGATACCTTGATTTGGCTTGCCCTCCCAAAGTGCTGAGATTACAGGCGTGAA
CCACCGCGCCCGGCCGACTTCAGGAGATCTTAGGCATCATTGGTTTGTGTTCTTCAGTT
AAAAATAAAAAGCCAACTCAAGACAAAGAATACAGTTTCAGTTCCAGGTTAGGAAGAGGG
AGAAGCTCAGCTTCTGAAGTAGTGCTATATTTACTGTTTACCTTGACTGTTATCTTTAGA
AGTTGATGATNATTTTAAAAATTGNGTTAACTGCTGTTTGAAGTTGTTAAAGTTC

Sequence 1907

CCGGGCAGGTACTGGTTTTACTGATCTTTGTGCAATTTGCTGCTCAGCAGATATTTTCAA
TGCTGATTGGTAATATGTCAGTGGATAACCAGTGGAATGCATGTCTATTAATTACTATT
GCACATAATATTTATCTTGTTTTATATTTGCACAGGATTTTCAAGGTGCTGGTATATT
TCTGAGCACTGTAAAGTTTTCTTTGAGAAATAAGTGTTTATTTTAAATTGCGTTGTCTC
ATGGGAGGGTAACATTTGTAATATACCTTCAAATTAGTGTTGTTCCCTCTGCTTTCTTTT
TCCTGACTCAGAAACAGAGTGCTTTGACTGCTCTATGTTGGGGCCATG

Sequence 1908

AGGTACAATATAGGCAGACAGTTTGCCTTCAGAAATTCAGAAATGCAGCTTTTGAGGGAG
GTCAGCATCATTGGTCTCAGCTACCATTTTCTGCAGGATGTTTATAAATAGTTCCTGGC
AAAGGAGGTTGCCGCATAGGGTCTACAAGTAACCTAGGTGGCAGCATCTCCTCCAGCG
TCCCCCGGTACCTGCCCCG

Sequence 1909

CCGGGCAGGTACGCGGGATGGGTTTAGACTAAAGTATTTCTTCATAAATTGAAAGAGAA
ACACACTAGGAATTCAGAAGATTTTAATTAAAGTTGTTCAAAAAATTTAATGGGAATTTT
AAAGGCTGGCTCACTAAGTAGTTTTGATAATGAATTTAATTTATAGAAGAAAGTTCTTGG
CAAATTTGGTAATGCCAAAAAGAGCCTACATATGCACAAATGTATATTTTCATGGAAGCAT
TATTATTAAGTGCTCTGCTTTTACTGGTTGACATACGTTAGTTCATTTTCAGCTTCATTCA
AATATGTAGATTAAACCTAACACCTATAAAATGGTAACAATT

Sequence 1910

CCGGGCAGGTACCATACACCATGGAAGTTAGCCTTCCACCTCAGGAGAAAGCAAGCTGCT
CTCATAAGCCTCTACCAACTACCCAGTAGTCTTTGCCTCCAACTGAACAACAGGAAAA
AGTGCCATAGTTTTTAATTAAGCTGTTTTAAAGTCCATGTTCCGGGAGAAAACAAAAAA
AAAAAAAAAAAAAAAAAANGTACCT

Sequence 1911

TCAGCATTTCTAAATCAAACGCAAACAGCAGAATCATATGGCATAGACACTTAGCANATCC
AATGCCTTCCAGGCATCTGTTTCTGTGATGAAATCCTCCCTATGGAGAGCAAACCTGGN
TCATATCTTCAGATAGTGTCAATTCACCCCTTGGCAGCTTTCTGGGCTACTAAATATCAC
ACCGTCTGGNGGGACATTTNACCCAAGTAGGCAAATGCATGACAGAACCTCACTGGATCAA
TATCTCAAATGCTGGGAAGAAAAAACGGTAACCAGAAATCTACACAGAGTGAAACTA
C

Sequence 1912

Table 1

AGGTACCATACTTTGTTTTATTCTTGAGAGGAACTTCGATCATTTAAAGCAGATATTT
 GCCTTCATCCCCTACCCCCACCCAATAAAACAAACCTGGAAATGCCCATTTACATATTTT
 AGCTTAATCACGGTCAACTGTCTTCTATCGCCACTTCACTGCTCACAAAATACACATATT
 TAAAAGTGAAAATACTGAAATATGTCTTCACAATACAGCTAATACCACCAGTAGAAAATT
 CACGTCACCATGTTTCAGTAGACAAACGTGAGAAGCAATGTGGTGTGAGATTGGAACTTG
 GGAGAGATTCTCAGAAATAAAGTAACCTCAATAGGTTGCTTTTTGCATAGTGCAAAATTA
 AACTTCACTTTATTTAGTGGAAGTGACCCAATTCAATCTTATCTGGGGTCAACACAGCTG
 ATTTCATTTGTGTTTGACCACTGCACATTTTGGCATCCAAAAAGTTAAGGAGAGGAAGTC
 AAGGGTATTATGGAGAACTACGAAAGACAGATGCCTCCAATAAAAGACTTTTTTGGTGG
 TATTTGGTTTTGGGTTTGGNGGATGATTTGGATCCCAAAAGAGAAACCACTTAAGATT
 GGGAATTCACCCCAAAATTTCTACCTTNAGAAAGACCCAACAATTGTTGNTNTGGNGA
 CAGCTTAATCACTGGAAGACTTTTGCATTNTTTTTTATTANAGAGAGGATTGGGTNGAT
 TTAAGATCCTCTTNTNCCTGCAGGTNTCCATTTAAATTNCACNCAGATAATNNGGAAAA
 NNNTCCANATNATGGCATCCTATTTGCTNGCTTTTTTCCAATTGGAAATTNGATTNAAA
 NAAAAAATNNNNNNAGNTCTTTTTTTTTTT

Sequence 1913

CGCGGTGGGCGGCCCGCCCGGGCAGGTACTATTAATTTAATGAGAGGTAACCCATGCA
 CCGGCAGGAAGTTCAAGGGGACAGAAGGGGCTTGCTCCACTCTGGAGCCCTATCTCCTCT
 CACCTCCTTCTTCTAGTTTGACATGCGATCTTGTCTCTCTCTTTATAAAGTGCTTCCA
 GGCCCTTTTGATTAGGATGCTGTCCTAAATCCTTCTCCACGTACCT

Sequence 1914

CCGCGGTGGGCGGCCCGCCCGGGCAGGTACGCGGGATGATTAATCTTCCCTTATCCACAAAC
 TTAAGTGTGGAGAAACAGGAGAAAGTGTGTGCCTAGAAGCTGGATTGAGGACCCATGGT
 TACCCACTTCTACTTATGATTCCGTCATTACTGTTGTTTTAGGAAAATAAACAGATCTTG
 ATTCTTTTATAAAAGTCGATTCTTCAACAAGCAAATGGGAAAATCGGCAGGCCAGATAT
 GTGTGTATAGCAGCTACTGGTTGGAAATTTGGACACAAAAGTCTTTATCTACCCAGCCTG
 TGAGCCACAAATCTGGACTGAGTATAAAAAAGAATAAACTAAATACCACAATGTTCTCA
 CTTATAAGTGGGAACATAACATTTGAGTATGCATGTACCTCGGCCGCTCTAGAAC

Sequence 1915

ATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGAC
 TGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTT
 CTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCAC
 AGACAAGACTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCA
 GCGGATTCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGAT
 GTCCCTGGACAAGATTTTACTCCCATACCCAGGCAGAAGTACCT

Sequence 1916

CGCCCGGGCAGGTACTTGAAGCTGTGATGGATCAGGTATCTAGGGCAAGCAGGTAGAGT
 GAGAAAACTCTGGAGAGCTTCAGGACTTAAATGTGATCAGAAAAAGGATCCTTATAG
 AAGAGACTGAGAGGTAGGAAGGGAACAGAAGTGATATTGCAGAGGCCTGAGGCAGACACT
 GTTAAAGAGGGAGGCACCTGGACACTTTTGCTGTAGACAAGTAGCCCATCTAATCCTAAA
 GAGCCCCCTTGATATGGCCACTTAATGACGTATGAAATACCTCAAAAATGATTTTAAAG
 TGTTTAAAGTAATGGGCTTCTGTGTCAATTTCCATAATATTCTGGGTGCCCTGCCATGC
 GCAAGACACTAACATAGGTGTTGGATGTTTCAAACAAATAACATTTATTGCAAACCTCTC
 GTAAGTATGACTTTTCTTCAAAAANAAAAATNNNNNNNANNAGGTCCCTCGGC

Sequence 1917

GCTCCCCGCGGTGGCGGCCGNCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGGAGAC
 GAGGTCTTGCTATGTTGTTGAGGCTAGACTTGGACTCCCAGCCTCAAGCAGTCCTACTGC
 TTCAGCCTTCCAAGTAGCTGGAACCACAGGCACACACCACTATAACCAGTTTATTTTACA
 TTGTTCTTGTAATTCTGGTATCAGTGATTCTTATAACAATATGCTCTCAATTTATTTTAA

Table 1

GCATGTTGAGACCTTAATGATAACTATTTCAGAAACCATACTAAACATTTGATCTTGAAT
CTTCCATCGTTTTCCATCCTCTGCTTATGCCTCAGTTATTCCATTTCGCATGATATGGGCA
CTTAATTTAGCCAACTCACTGACCCATTTT

Sequence 1918

CCGGGCAGGTACTGTGATATCCACATATTTTTGAGAAAAATTCCCAAGCCAGGCGAATGT
GGATTGGAATAAAGACATAGGCAGTGTATACCACCATTAGCAATAATGGTTAGTAAGATGG
TGTTAAACATAGATCGCTCCCAGGGCTCTAAACAGCACAGCAGCTAATGATTGGTATT
GATAGTAGAGCCAGGAGAAATATTCCTTACACGCTCAAATCCATGGTTGGCTCCTTCA
AGCTGCAGTAAGTTTGTCTAAGAAAGTCCAGGTCTGGTCTTTCAGCCTTGCTCCTTCGC
GAAATGATCCTGTGTGGGTTAAGTTCTCCTCTCTGGGTTGCTGTTTCTCATCTCCCACT
TGGGGTGTATCTCCCTGCGGCTTAGGTGAAGCGCCCCGAGGCTT

Sequence 1919

AGGTACAAGCATATAATGCCAACTGGTAAAGTCAGAACTCCAGATGACAAGGTACAGCAT
GTAATCTTTTGAGTCTATTGACAGCAATCTAAATAAAGCAAAGGAAGATGCTTCCAGT
ACTACAACTTTATGGGAACCTAGGGTCTCTCAAAGCCACACTGTTTGGGTCAGTAGCA
GGAGGTACAGTATATTAAGCAAGCAGCTCANCCTCTCACTAGTGGTGAGATGTATGAAA
ATCCTGGCAATGCCAGGGGGAAAAGATCTATGAGTCTTCCCTTCGGTCATCTCTCCTAT
TTCTTGCAATTAGTTTTTTCAGGGTTAAATACACATCTCACAAGAAGAAGCTAGCTATATA
TGGGCTGGGTTGGTCTTCAATNGAATCTNCAATGTATCA

Sequence 1920

CCGCGGTGGCGGCCGAGGTACGTGGCGTAGCATTCCATGTTTCAGCTTTGACATTTATTTT
CTCATATCAACCTTTTTACACGTGAAACACAATCTCGCTCTTGAAGTCTTAAGTGCATG
ATCTGTGAAACCTGTATTTATATTTTCTTCAGTGTATTCTTGTCTGTGTGTCTCTAAA
CAACCCAAAAGAAAACCTTTCCAAATCTAAAGTATTCTCTCCAATTGGAGCAAGAGGAG
TCAGTTAGATACTATCACGGCATTTCATTTGTGGCTGGCTTGTATATTTACTTATGATTG
ATAATAAATCTATTTTGTCTTTTAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGGTATTT
AGTTTCATGATTTTCATTTTGAATGACTTATTAATATGTATTTGGNGAAGTATACATT

Sequence 1921

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGTCTGTTGT
CTTCATCATGAGATCAGAAAACCTATGCTGCTCCCTAACTATGTGACCTTGAGCAAGTC
TCTTAAAGGAGAACTTCAGTTTCTGTATTTGGAGAAGAAAGAAGATCATGGTAGATGATC
CTCTTGAATTGGCTTCAGGCCTCTAAAATCTGTAGTTTGGTAAAAATGCCTAATGACCA
AATGGAGGCAAGATCTCGTTACCAAGATCATGGTGGCTTTGGAAGTGACAGAGATGGCTG
AGACCAGGAGGCTGAAATGAAATTAAGTCCCTATGATGTTGCTTTAAGTTAATGCTATCT
AAGAAAAGGTGCTGGTAGAGGAAGTGGGGCCCCAACTTGGCTTCATAGTGATTGGAGTT
TCCAAATCAATGGAATAGG

Sequence 1922

AGGTACGTGAACTGCATCTCTCACTTTTTCTCTCTCTTCGGGCAGTGCTAGGAAGATTA
CTCACAAAAAGTCAAATCACATCCCCATTCTAATGTTGGTATTTCTGGGGAAGCCTTAT
GGAAAGCTGCGTTTTTTCATGGGGGAACACTTTTGTGCCATGGTTTTACAAAGCTAAAGA
ATTTCAATAGTCAAACCTGTTGCCATAAAAAATCAAACCTTAGGAATAGAACTAAACATGT
TATTAACAGAAATAGGCTTGAGAGAGCAAGAGAATTCTTTTGGAGTAAAGTTATCCAAAGT
CTATGTGTTCTCCTTTGACACATAAATCTACTATCGACCTAGTCTTGGACTTTTTTTTG
GACAGAAATTGGGTAAGTTTTGCAAAAGGACAGGCACAAAGCC

Sequence 1923

ACTATAGGGCGAATTGGAGCTCACCGCGGTGGTGGCGCGCCAGCGCCGCTCGATGCGCG
GGATCTTGCAAATGTCGGTGCCGATGCCGTAGATCATGGGCTAGTCCTATTCTTATGCT
TTGTTGCCAGGCGCGCAGCCACCATGATGGCTTCATTCGCGCACGGCGTTTTCCAG

0

Table 1

CCCGACAAACACCGCATGCGCGACGATGGCGTGGCCGATGTTAGCTCAGTAATATCGGG
AATGGCGGCGATCGCCTGCACGTTGGTGTAAATGCAAGCCGTGGCCCGCATTGACCTTCAA
GCCACGGCCACGCCGAACAGTACGCCTGCCTTGATGCGCTCCAGCTCCGCAACTGCTCG
GCGCCTGCCGTATCGGCGTAGCGGCCCGTGTGCAACTCGATCACGGGCGCACCGAGTTCG
GCAAGCGGCGGCGATCTTGTTGCTCGTCGGCATCGATGAACAGGCTCACGCGGATGCCCT
CGCCCTGCA

Sequence 1924

AGGTACAATGGGAACAAGGAGATAAGCAGTGAAAGGCCAAGGGAATGTCTGGAGTTAGGA
CTTCAGGTGATTACAACTTGGCTGCCACTCACCCGAGACTGCCCAAGCCCAGATTCTT
CCTTCTATAAGAATATTGATTCTTGCAAATAAGATGAACCTAAATGTGGTCCAGGAGTCA
GCATCTTCTACATGGTACCTGCCCCG

Sequence 1925

TCGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCAGGTTCAAAT
AGTCAGCAGCTCATCATAATCAATGAGCGAGGACATAAAGTAGGAAAAATGCATCACCAT
GGTGAGCAAGGAAAGCAAGTTATTGGAGGCACATGTTAACACATAAAATATAAAATTAAT
ATGATCACACTGGAAAGGCTTGCCTGAGCCACAGTTTGAATGCCTACAATAAGATGAGA
TGCAACAACAAAAAGCAAGAGAACCTGATCAAGTGGGTGACCTGGCCATGGTGCTCTCATC
AGTGGGGACCCAAATGCTTATGTGGACTCACCAGGTATCGAATTAGACATGAATAGGAGT
GTTTGTGTGATCCAAGGAACTATATAATCAAAATGAATACAATGAAACTTTAAAAATA
ATTGTAAGGATCTTTACACCAGCCCA

Sequence 1926

CCGCGGTGGCGGCCCGAGGGTACGCGGGGAATCTTACTCCCTCGTAGAACAGGCGATATC
TTCACCATGCGCACAAATGAAATCAATACTCAGAGAAGGCAGATAATTCTCCACGAAGCCA
GAAACTAATAATGAACAACCTGGGTGAAATGTCCACCAGACGGTGTGATATTTAGTA
GCCCAGAAAGCTGCCAAGGGGTGAATGACACTATCTGAAGATATGAACCAGTTTGCTCT
CCATAGGGAGGATTCATCAACAGGAAACAGATGCCTGGAAGGCATTGGATTTGCTAAGT
GTCTATGCCATATGATTCTGCTGTTTGCCTTTGATTTAGAATGCTGAGCTGACTCAAAGT
CAAATAAAAAAAAAAATGAAATAAAATAAAATCTTTATTTCCATGAGCTAATGAGGA
AAAAGGGGATGATGAAAAACAGGGAGTGGGAGCAATTTGGAAATGGAAAGAATGCTGAA
TACCTACATGATGCCTAATTCAGAAGAACATTCTGGTATGTAGGGACATTAT

Sequence 1927

CAGGTACTTTTNTTTTTTTANNTNNTTTTANTTCGCAATACCAGCTTTNACCCTGNCCT
CTGCACTGCTTAGCCTNNGGCTCTGCTGAGTNGTGCAACACATTCTGANAGATGCCATACA
ATGCTCCAGGCAAACCTATAGAAAAACAGGAATGAGTGATTTTATACGGGATGTGTTTCA
GCTGTCCAATNCAAAATAAATCACGTCCAGGTGCATTCTTTCCTAATTTGTGACCCAAAC
TGCTTGCACTTTATACATTAATGAATTATTTTTTAAAAGAAATTAGCTCTATCATGAAG
ACAGGGCTATCTAACCCTTTGGTGGTCTTTNTCCCTTAAAAAGCAATTGTTCCATTTTAT
AGGTGTTAGGTTTAACTACATATTTGGAATGAAGCTNAAATGAACTAACNTATGTNAAC
CAGTAAAGCAGGACACTTAATANTAATGCTTCCCTGAAATNTACATTGNGCATATGTA
GGCTCTTTTGGCATTACCAAATTTTCCAAGAACCTTTTTTGTGTTTAAATTAA

Sequence 1928

TCACTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCCGAGGTACAGGGAACCTATTGG
AGCACCTAAGAGGAGCACCTACCTTGAATTTAGGGGTTAGCAGAGGCATCCTGAAAAAAG
TCAAAGCTAAGCCACAATCTATAAGCAGTTTAGGAATTAGCAGAACGTGCATGGTGAGGA
GATGCCAAAGGCAAGAAGAGAAGAGTATTCCAAACAGGAGGGATTCCAAAGAGAGAAGAG
TATCCCAAACAACATTTGCACAAACCTGATGGGGAGAGAGAATGTGGGGTGGGGATGGAT
GATGAGACTGAAGAAGAANGCCAGGTCTAGATAATCA

Sequence 1929

AGGTACCATGATTAGTTAAATATAAGACTCCGTAATTTTTACAATTTTAAACAATAATTTT

Table 1

ATTTCTTCAAGCTTGTTAGTTTGGGATTGTATTA AAACTCAGTGTGTGACTTAGAAAATG
ATAATGCTGCTTTATGGA AAATGGATTATAGGTGGGTAAGACTTCATTGCAAAAATTGTG
TAATACCATCAGTGTAGGAACCCAGTTGAAGTCTAGAAGACAGATGTTAGTATCTTAGA
CTAGGTTGGTATTTGAATAGATATTGGTAATATCAGTAGAATTTAATAATACATTAGAAA
GAAAGAAATCAGAGAAGATCTTTTATTTCACTTGATACTTGNGGTGGTACTTTCAATGAG
ATAAGAAGGGCAGGCCAAGGAGAAAAGTTCAGGGGCAGGGGATGAGAAAAAACAGAATT
TTATGTTGGACATGCTAAGTTAAACACCTGCTTAACTCANATTGGCTTCTGTGGAAGCAG
AGGCTGACATGAGGGTGCTTATGAAAATGCTTTTTTGAGGAAGCCATTGCAGGAGGGAAT
CTCTTAGGAAGCCAGGGGAAGAAAGGAAAGAGAA

Sequence 1930

AGGTACTTTTCCATATTTCCACATACTACCAAGGATTTTCAAGTG TAGGAGTAATTCAAT
CAGACCCTTTCTTTTCATATGAGAATTCTCAAAGAGTAGAATAAATGGAACACAGAAAGA
AAAGACTTTAAGCAAGGGGCTTCTTGGAAGCCACTGCAGCAGTCCAGGCAAGTGATGCTG
AAGGTCTGCAACAGAACAGGGGCCCCGAGAGTGAGAGAAGAGTGGGTAACTATCATATTAA
AGAGGCCAACTCAGACTGGGGGCAGTGGCTCACGCCTGTAATCCCAACACTTTGGGAGG
CTTAGGCAGGCGGATCATGAGGTGAGGAGTTTGAGACCAACCTGACCAACATGGTGAAAC
CCCATCTCTACCAAAAATACAAAAAATTAGCCAGGTGTGGTGGTGCGCACCTGTAATCCC
AGCTACTCAGGAGGCTGAGGCAGGAGAATCCCTTGAACCTGGGAAGCAGAGGTTGCAGTA
AGCTGAGATGGTGCCACTGCACTCCAGCGTGGGTGACAGAGAGAGACTCTGTCTCAAAAA
AAAAAAAAGTACCTGCCCCGGCGGCCGCTCTAGAACTAnnnnnnnnnnnnnnnnnnnnnnn
nnnnnnATATCAAGCTTATCGATCCGCGACCTCGANGGGGGGGCCCCGGTACCCACTTTTG

Sequence 1931

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTNAAAGGTGAAGTTTCACTTTGTCAACC
AGGCTCAGTCTCAAACAAACAAAAAAAATTTGGGGGATCTTTATTTTCATGCTTTCTCT
CATTAGAAAAGAGAGGACAATAAAGTGTTAGAAGATAATAAAGCACAGAAGTCTAGCCA
GTGTCTTTGGA AAATGAAACGGCTGTGTGAATTTTTATCTTTTGGCACCTCTTTAAAA
ACTCCACTTAATGACCTACCTGCATTACTGAAGTGTCTCTTGTGGGGTGATTGTAGTTA
TNTCTTGGGTGTCCATGCATCTGTGGGCCATGGGAGGCAGGCAAATGAGGCTTCTGAGGG
TNAAGGTTGTGTNAGGNATGGGACTGAGATATCAGANAGTCCCGCGCNGGAACCTGAGGCC
TTNGGACCAAATGGTTTNTTACCCCCAANNCCANGNCGNNTNTCTTNNTTTTGCTCCNAAA
GAGGNAAAAGGAAAACCAAANGAGCTTAAAGANCCCAGGCNTTAAATCCCCCAGAAAAA
GAAAAAAGGNTTTNANCCTCTAAACNGCTNCTTTTTGGCCNTTNTTAA

Sequence 1932

CCGCGGTGGCGGCCGCCCCGGGCAGGTACTTTCTCTCATAGGGAATTTTTTTTAAATTTT
AAATTTTAATTATTTAAGAGACAGGGTCTCACTCTGTCAACCAAGCTGGAGTGCAGTGGT
GTGATCATGGCTCACTGCAGCCTCAAACCTTTGGGCTAATGTGATCCTCCACCTCAGCC
TCCCAAAGTGCTGGGATTACAAGCATGAGCCACCACACCCGGCCATCCTAGATGATTTT
TAAACATCACTTTTCTCCTGGCAGAATTTCTGACTCTGTAGTTCTTGTAACTTCCAGA
GAAAGCCCTGAGTAAGCCAGACCCTAATTACAAACATGCCTCAGTGGATGAGGCTACAAT
TTGAGTCCAAACTGCTCAAGGTTCACTGACAAAGTCTCACACCGTAAACCTGAAACAT
CATGTTACAGTCTGAGGCCTGCTCCGAGCTGGGTAAGAAAGGCCTCGTGAATGCAGCCCC
CTGGGCAGATGAGGTTTGGGCCCTTACCCCTTTGGGACTGCCTCCTCATTGCTCCTTGGG
AAGCAGCCGCGCTTGCTGCCTGTGTCTTTGGGAAAGTGAAAG

Sequence 1933

AGGTACAATATAGGCAGACAGTTTGCCTTCAGAAATTCAGAAATGCAGCTTTTGAGGGAG
GTCAGCATCATTGGTCTCAGCTACCATTTTCTGCAGGATGTTTATAAATAGTTCCTGGC
AAAGGAGGTTGCCGTATAGGGTCTACAAGTAACCTAGGTGGCAGCATCTCCTCCACGCG
TCAGGACTAAGCACACAAGTTCTTCTTCCATCTACCCCGCGTACCTGCCCG

0

Table 1

Sequence 1934

CCGGGCAGGTACCTTCACAGCTGCACCACACCAGTTCTGGGCACATGGACAACAGATCAA
GCTCCCCCATCATCACATAAGTTAGGCACCAAAGAGTTAGCAAGGGTATTAGTTCCCAC
TTAATTGATTGCATATCATGCAGGCTCTGATTTCAGTACCT

Sequence 1935

GANATGCTGCCACCTAGGTTACTNGTAGGACCCTATACGGCAACCTCNTTTGCCAGGAAC
TATNTATAAACATCCTGCANGAAAATGCAGNGAAGTNGAANAGACAGGGATATCCCATAA
GGTTATGCANGAACATCAAGAGAAGATGAGAGGTCANAGATGGGAAGAAAACAAGAACTTT
GACATGCTTGGTGTCTTGTCCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTNAGAAT
ACANATTTNCCACCTTGCCCAACAGTAGAAAAACATAANAAGANAAAAACATTAAAAAAT
GACAAGGAAGTTAAT

Sequence 1936

CCGGGCAGGTACCCTTCACTCTTTAGGAGAAGGTTTGAAAAAACTGTGTTTCCTGTTG
AAGGCCAGTGATACCTGGCAGCTTACAGTTAGAAAACCTCTATAACTTTATTATTTTCATT
TGCACTTAAAACCTGCTATGAGTTTTTAATGCAAAAAATAGTGATTGAGAAAGAAAAAG
TGAACATATTTATATTCTTCCCCCTCAGAGAGAAACGCTGTAAACATTTTGTGTATTTTCG
GTCCAGGTTCTTTTCTGTGTGTGTAAGCACACATATGTGTTTATATTGTATAAAATAAGA
GATTCATGCTGGACATACATTGTTTGTAACTTCCTTCCTTTCTCTTCTTTCTTTCC
TGAGCTAGGGTCTCGCTCTGTCAACCCAGGCTAGAGTGCAAGTGGTGGGATCTCAGCTCACT
GCAACCTCCGCTGTCTGGGCTCAAGCGATCCTCCCAACCCAGCCTNCCAAGTAGCTGGGA
CCACAGGCACATGCCAGGATGCCTGGCTAATTTTTGTTATTTTTGANAGACAAAGTCTT
ACTATGTTGCCACNTTGGTCTNNAACCTCCTGAGCTCAAGCNATCTACTCACCTTGGC

Sequence 1937

CCGGGCAGGTACTCCATGCCATGCTTGTCTCAGTCTTGGTTGTGTTAGCCCTCTCCCT
GCTCATGCCCCAGTTCCGTGAGCAGCAGCTTGAGTTTCCTTAATGCCTGGGATTGGCAAC
CCTGGTAACAAGGACCATGAACACTCTATTAAGAGCTAGGATTAACAATGGCATCTTGCT
ATAGCTGCTTAGGCTTCAGGAAGGGTGTGGAACATAAAGCATTTCCTCCCTTGAGCAG
TTCCTTGCTCAGTCCCCTGACTGCTCCCTATGCTAGATTCAAGGATTGAGAGGGTCAAA
ATGCTCTCCCAAGATCTAGATTGTATGATTCCCCAGTGAGAAAATGGACCACAGAAAAGC
CATTGCTTACTTTCTCCTGTATTATAGAGTCACTCCTGATTTCAGCTGGTCTTGGTCAC
ACAGGCTGGCTGTTTTCTTTCTTTCTAGTTT

Sequence 1938

GATGGAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGG
TACTTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATTATAAACATCCTGC
AGGAAAATGCAGTGAAANTATAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATCA
AGAGAAGATGAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTTT
GAAAAAANAAAAAANANAATAAAANGTTCTTNGGCCGCTNTANAACCTAGTNGGATC
CCCCGGNG

Sequence 1939

CCGCGGTGGCGGCCGAGGTACGCGGGGACAATGAAATCAATACTCAGAGAAGGCAGATAA
TTCTCCACGAAGCCAGAAAACCTAATAATGAACAACCTTGGGCGAAATGTCCCACAGACG
GTGTGATATTTAGTAGCCAGAAAGCTGCCAAGGGGTTGAATGACACTATCTGAAGATAT
GAACCAGTTTGCTCTCCATAGGGAGGATTCATCAACAGGAAACAGATGCCTGGAAGGCA
TTGGATTTGCTAAGTGTCTATGCCATATGATTCTGCTGTTTGCCTTTGATTAGAATGCT
GAGCTGACTCAAAGTCAAACCTGTAAGTACCTGCCCC

Sequence 1940

AGGTACGCGGGGAGCTAATTTCTTTTAAAAAATAATTCATTAATGTATAAAGTGCAAGC
AGTTTGGGTCAAAATTAGGAAAGATGCACCTGGACGTGATTTATTTGAATTGGACAG
CTGAAACACATCCCGTATAAAATCACTCATTCCTGTTTTCTATAAGTTTGCTGGAGCA

Table 1

TTGTATGGCATCTCTCACAATGTGTTTGCACTCAGCAGAGCCAAGGCTAAGCAGTGC
ANAGGACAGGGTGA

Sequence 1941

GGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGCCCTGTGGCCCCCATCTGAC
ATACCACCAGAGATCTGGTTATCACCTGGCCATTGACTACCACAGCCAGCCTTGCTTGA
CATGCACCACCAGGGTCCCTGAGGACAGGTCTGCCCAATTAAGCTCCACCCTACCACAGT
GAAAAACAAAAAGAAAGAAAGAAAGGAACAAAGGATATTCAACACAACCAGAAATCAATA
AATAAAATGACAGGAATAAGCCTTCACATATCAATAATAACCTTCAATGTAAATGGATTA
AAGTTTCCACTTAGAAGATAGAGACTGGCTTGAATAGATTTTAAAAATGACCTAATTACA
TCCTGCATACAAGAACTCATGAGGGAATTCAAAGGAATT

Sequence 1942

CCGGGCAGGTACTTGCAAGAAACCTCAGGACTTGAGTAACAGCAACATGGTAAGTTTTCT
AAGTTTTCTTTTCGTCTCCCATATACGCTGGGCTGNGCTGGAATCACCACAGGCACAGA
AAAAATGACAACAAAACANCAACANAACCCCCAAGAATATCCTGTTCTTTGGCCAAAG
TCAGGAAAGGGGAGCCCCAACAGAGACCCAGTAGGAAGCTCTAGCCCCCTGTTTGTACCT
CGGCC

Sequence 1943

AGGTACAACCTTGACAGTTTATAAAAAATGCTAACCTATATCAACATTTTTCCCCACCAAAG
TGTTCNNAAGGGCAANGGTAAGNGAATACATGTTTNCNTGCTTGTCAGGGGCACACAG
CAAGGGAAGGCANAAATGGGCATGACCTAGTATTNAGAATCCCCAANAAGCCCTTTCATA
ATCCCTTAATAAANGAACTTTGNGNGACCTTGCATTNNTTTAAANANATNAAATTAATT
TGGGTTTCATNTTTCTTTAATNTCTNTGCCAATTAACCTATATAAAGTAAATTGGGGAAA
ACCNCANAAATTGCNCATGNGNCTTTGGTTACTTTGNAATCTTCTTTTGGACACCCC
AAGNTNTGGCCTTCCCTTTCTNCCTNTTAANTTGATNCCNTTAAACCAATCCTTGGNCC
CCTTNCNGGTTTCTTTTAAATTGGNAAAATTTATAATCNTTCNATGGNNACCAATTTTAA
CCAATNTATGNAANATAGGNAACCTNAATTTTGGGTNTTTGGTNTTCAAGTNTTTTCA
AAACNATCTTTTCCAAAATTTTCCCAATT

Sequence 1944

CCGGGCAGGTACTTATTTTATATTAATGTCAGACTTCAGGATTTATTTAGCCTTCCTT
TTTGAGAAGCTTTCTAAGCCCTCAGCATTAAAGCAGCATTTTCTCATCACACACGGATC
TGAGCAGGTGACCGCGGCTGGGATAGGTGCTGTTTGTGTTAGTGTGCAGGTGGGCTGGCC
AGCCATTGGGTGTGTGTTTTCTAGAGTAAGAAGCACTCCAGGCTGAGATGAGAGCTGT
TGAATGAGTAACATTTCCGTCTCCTGTGATACGCGCTGCTGTTGCNTTCTTCAA

Sequence 1945

NCTTNCAGTCGGNAAAACCTNGTTNGANGCCAAGCTNGCATTTAATGAAATTCCGGCCC
AACGCCGCCGGGGNGGAGAAGGGCCGGTTTTTNGNCGTTATNTTGGGGGGCGGCNTTCTT
TTCCCGCCTTTCNCCTNCGGCNTNCAACTTTGNAACCTTCGGTCTNGNAGGCCTANCGGG
TTNCAGNTTCNNGGCCTTGNCCGGGNCNGTANNCCGNGGTTATTTCNAGGTCTTCCATC
CTTCAAAAAAGGGGCCGGGGTTANATTAACCGGGGTTTNAATCCCCAACCAAGNAAA
ATTCCAANGGGGGGGGAATTAACCGGNCCAAGGGGNAAAAAAGNAAAACNAATTTGG
TTNGGAAGGCCANANAAAAAGGGGCCGCAAGGNCAAAATAAAGGGGGCCNCAAGTGGNA
AACNCCCGGTTAAAAAAGG

Sequence 1946

AGGTACCTTTGTTCTTCTCCTCCTCCATCCTCCAGTGCCTGTGACTGGAATGGTGAAT
GGCACCCTGGATGGGTTTCTGCAGATGTGGAACAGCCAGGAAGCCAGCCCTGTCCAAAT
TGAAGTGCTTTCTGTAGGACCAAGAAGGGTCAATTACTATTAGTGGTAGACTTCACAAGC
CAGGCGGTAGGAAGGCAGGGAGAGCCCTATGAGAACTGAGACCGACTCACCTGGCATGTG
CTGGATCCATGCATAAAGCTACTGTATCAATGTTTCAGTTGAGTGAATGAAAAA
ANANNNAANANNNGTCCCTGCCCG

Table 1

Sequence 1947

TACTATAGGGCGAATTNNAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAGGGAGA
CAGCATGCAGGGTGTGTTTCAAGAGCTTGCTGAGGTGCTCGGCTCTTAGCATTAAAAAT
GTGATGTTGGTATATCATCCTGATAGAAAACACTGCTTTCCAAATCCTAGTCACTGGATG
GGAGGAAAGTAAGAACAGATTCTGCCAACCCTACTGATTGTTATAATTCTCCCCATTG
AAATTGGGACAAAATTTGTAACATGCTACTCTGAAATTGATCACATTCTCAATTCTGTCA
ATAGCAGAGAATTTAGCCTCAACACCACCAATTCAAAATAGTTTAGGTCTTGCCCTGCC
TGATTATGTAACAGAAAAGCATAAAGTTTGCAGGGTGGAGCGGGAGGATTTTCTAGGAA
ACTTCCTTCTCTCCATTAACGTGTG

Sequence 1948

TAGGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCGCCCGGGCAGGTACTAATTTG
TAAATTAAGAAGTTGTAGAAGTGTGAACATCAACTATTGCATTATAGGGAAAAAGTTAA
TTTAAAAGAAATAGGACAAGGTAAACTTTTTAAAAATTTTGCAGTGGAATATAAGACAA
AAAAGCATTTCAGAAAGTTTGACATTCAGTAGAAGCTCTCTGTGCCTCTCTTTCCAC
CATTCATACTGTAAAAAAGACAATATTGAAATATTACCATCAGTATTATTGACTGTTG
AAGACTGGGCCCTTGCTGTAAGTCAGGCACCATGCTGGATGCAGTAAATGTATGCTCTAT
TTCAAAGGTAAAGCCACTGCATCTTGACACACAGTTTGGGTTCAAAAGCTTTAAAGAGT
AACAAGAAGGTTTGCCCAAGCTTAGTCACATCACTGAGCAAAATCCACCGGATAGAATGA
GGTTGAGATCTCTGAGAAAGCAAAATACTAATTGACAGTAGCAGTTGGCGGGTCATGTTT
TT

Sequence 1949

GCGGCCGAGGTACTGATCTAACCAAGATATTTGTTTTTCTCACCACCACTNACTTTCT
CAGTCCTTTCTGTATCCCTTGCAATTTGAACAAAGCTTGGTGAATAGTGTGCACACAAAA
AGCACACTAGGTGAAAGACAGATACATAAAAAGGTAAAGNCAGGATATTTAAACANCC
TATCAAGCTCTAAATATAAGCCTCCTTGGTAGTTTTTCTCTTTAACCTCTCTCCACTGTT
GGATGAAATTTGCTGCATTCAATTCCAGNTCCACCCCAACTTCCTTCTTAACACAAGGN
CANGGTTAAGCCTTCGGTGCTTTAATCCAGAGGAAAATTACTTATTTTAAAAGCAGTGA
AAAACACCGCATTCTTTGGCACAGG

Sequence 1950

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAAGCAGTGGTAA
CAACGCAAGACTTTTTTTTTTTTTTTTTTTTACTGCAACAACCTAACAGGAAAACCTAA
TCAGAGATCATGAGGAGAGTGGTATATCAGTCAGGGACTAATCAGGAACATAATCCACTT
GAGATTTTAAAATAGAGAGGGCTTAGGCTGGGGAGTTGGTGACAGCATAATGGGAAATCT
ACAAAGCAAACAGGAATAGGGAGACAACCCAGAGCCCATCTAGGCTGGCAGAGTCATCAT
CTCTAGGCTGGAAGGTCANAANAAGGTGGTGTAGTGAGCCAGGAGATGCACAGTCTCC
CAGGGGAAGCTGGAGCTAGGGGTACCTGCCCCG

Sequence 1951

ATTTAGGGCGAATTGGAGCTCNTCGCGGTGGCGGCCAGCACATAATGCAGTATACGCC
AATTAAATTTGAGACTCACAGAGTTTATTAGTGCCACCTTGCCAACCTCTCCTATTAG
AGATGAAGAGACTTCCAGAGGTCATACCGCAAGTTGACAGCAGAGATGCAGTAGGAACTG
AAGTGAGGCAGAAATTTGAGGATTCAGGTCCATGGGGAAGATAGTTTGCTGAATGAAGGAG
CAGTGCTTTAGGGAACAATTTAATGGAATTTAAAGACAGAATAATTCAGAACTGGATAC
ATAGTAGATACCAACTGCACCTTGTTGGGAATAATTCTCTGGATAGTATCTGGCAGTCTTC
AGATACTTTGCTGTTATCCTGGCTAAACCACATAAGTTGTTGTGTGTTGGTTCACAATCT
GATCTTGCAAGATGTAAGTTAGAATCTTGACAGTTTTTTTG

Sequence 1952

AGGTACGCAACATGACATTGGCTGGTGTAAAGATCTTACAATTATTTTAAAGTTTCATT
GTATTCATTTGATTATATAGTTTCTTGCCATCACAACAACTCCTATTCTGTCTAAT
TCGATACCTGGTGAGTCCACATAAGCATTGTTGGTCCCCACTGATGAAGAGCACCATGGCC

Table 1

AGGTCACCCACTTGATCAGGTTCTCTTGCTTTTTGTTGTGCATCTCATCTTATTGTAGGC
ATTCAAACCTGTGGGCTCAGGCAAGCCTTTCCAGTGTGATCATATTAATTTTATATTTTAT
GTGTTAACATGTGCCTCCAATAACTTGCTTTCCTTGCTCACCATGGTGATGCATTTTCC
TACTTTATGTCCTCGCTCATTGATTATGATGAGCTGCTGACTATTTGAACCTGGTA

Sequence 1953

ATCACTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGCCTTCACGGCCGAAGCC
CGATTGCGGTAACCGCCGAAGCCGCAAGCCGCGTCAACTGATTGGCGCTGTTGATCCA
CACCACGCCAGCCTTGATGGCGGGAGCGATGCCAGCGCGAGGCTGATCGACTCGGTCCA
CACGCTGGCGGCCAGGCCGTACACCGTGTGTTTCGCCAGCTGCACCGCTTCAGGCGGCGT
GCGGAAGCTCATGGCCACCAGCACGGGGCCGAAGATTTAGCCTGTGCCACGGCGGCCGA
GGTCGACGCGCCCGTGATCAGGGTCGGCGGGAACACAGAGCCGTGAGCCGGCAGTTGCGA
CGCCGGCTGCCATACGTGCAACCTTCGGCACGGGCAGAGTCGACCAGCGCGGCGATGCG
CTGGCGCTGCACGGGGTCAACCA

Sequence 1954

CCGGGCAGGTACTTGGTTTTNTTTTTNTTTTTCTTTTGGCTTTGACTTTGAGTCAGC
TCAGCATTCTAAATCAAACGCAACAGCAGAAATCATATGGCATAGACACTTAGCAAATCC
AATGCCCTTCAGGCATCTGTTTCTGTTGATGAAATCCTCCCTATGGAGAGCAAACCTGGT
TCATATCTTCAGATAGTGTCAATCAACCCCTTGGCAGCTTCTGGGCTACTAAATACAC
ACCGTCTGGTGGGACATTTACCCAAAGTTGTTCAATTTATTAGTTTTCTGGCTTCGNGGAG
AATTATCTGCCTTCTCTGAGTATTGATTTCAATGNGCCCCGCGTACCTNGGCCGCGACCA

0

Sequence 1955

CGCGGTGGCGGCCGCATACACGCGGGCGATGACTTCGTGCGCGCCGGTTCTGGTCGATGGC
GCGCGTGACGATGGGGCTGCGTCCGGGCGGCAGCTCGTCGATCACCAGACACTTCAGGTC
GGCGTAATACGTCATGGCCAGGGTGCGCGGGATCGGCGTGCCGACATCATCAGCTGGTG
CGGCACGGC

Sequence 1956

GAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTGATCTAACCAAGATATTTTGT
CTCATCCACCAGTCACTTTCTCAGTCCTTTCTGTATCCCTTGCAATTTGAACAAAGCTTG
GTGAATAGTGTGCACACAAAAAGCACACTAGGTGAAAGACAGATACATAAAAAAGGGTAA
GTGAGGATATTTTAACAAACCTATCAAGCTCTAAATATAAGCCTCCTTGGTAGTTTTCTC
TTTAAACCCTCTCTCCACTGTTGGATGAAATTTGCTGCATTCAATCCAGTTCCCAACCCCA
ACTTCCTTCTTAACACAAGGTCAGGGTTAAGCCTTCGGTGCTTAATCCAGAGGAAAATT
ACTTATTTTAAAAAGCAGTGAAAAACACCGCATTCCTTTGGC

Sequence 1957

CCCCGCGGTGGCGGCCGAGGTACGCGGGGGCCCTCAACTTCTGAGAGCTTAAGGTATTTG
TTCATGTTAGGCAGGTAATGTCTATAAACCAAAAGCTGCCACATACTATCTCTGCTCA
ACACTTTACTGGATACTGGAGGATTTAAGGGAAGGAAAAAGTGACCTTTTTTGCTTTT
TAAGAGCTTGTAATCGGTAAAGGAGATAAACTCACACAAAGGTCAGGGTATATTTGTG
CTAAGCATATGACCGTAGACATTTAAAGTGCTGCCCGTAATGCAGAAAGAAGAAAGT
GGTGTGATCTAAAAGTAACATAGGTTTTGTTTTGTTTTGNTTTTTGNTTTTTCTTTT
TCTTTTTCTTTTTCT

Sequence 1958

CCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGAC
CTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTC
CTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAATGCAGTGAAGTAGAAGAGACAG
GGATATCCAGAAAGTTATGCAAAACATCAAGAGAAGATGAGAGGTCAGAGATGGGAAGA
AACAAGAACTTTGACATGCTTGGTGTCTTGCCCAAGCTTTGAAGAAGTTACAAAGTCT
ATATGTCAGAATACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAA

Table 1

ACATTAATAAATGACAAGGAAGTTAATGGAAGTCAACAAATGTGATGGTGTGTTGGANGTGG
AGCCTTCAAAAAGGTATTAATGCCCTTGTAGAAGAAGGCCAGAAAAGCTTGC GCCCCTT
CTTTCTGCCCTGTGGANGGAGCCCAAGANNCCGGCTGGTCTTGCNACCTTGCAAGAAGGA
CCCCTCACTTAGAAGCTAGGCCNTACTTGGGCTTNCCTAATCTTGGGCTTTCCNACCTT
NCAGAACCTGTGANNAAAGTTNTNTTGTGTTGGGGGTTAATCCAATGGGCTATNGGAAATTT
TTTTATNACCNNCCCNNGCCAAGANAGGGCCCTTATTTACTTCCTTCCCTT

Sequence 1959

GGCGAATGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTG
AAAGGTCACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAG
ATAGACCACTGGAACAATGAGAAGGAGAGAATTCTCTGGTCACAGACAAGACTCTCTTGA
CTGCAAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCCTCTGAGCG
CTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGAC
AAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCNGAGGAGCAGTCTCTTCTGTCCCGCT
GGAACCCATGGTCCACTGAAGTTCCTTATGCTACTTTCACTGAGCATCCTATGAAATACA
CCNAGTGAGAAAATTCCTTGAAATTTGCAAGTNGTCTGGGTTCATTGTCTAAAGCTTGGT
TCCAACCTTTCCAGAAATGCCCCCAAAGAATTCACCTNGGATCTTGGAAAAAGGAAAAAA
CCTGATGGNGGTAACTGAANCCATTTTGGTTGGNACCCTANCCAGGGCTNGATGTCATT
TATTTGGGAAACCCNNACAACTTGGCTTTTTCTTTGCCCNNGGGANGNNTTGGGTTTT
GAGAAGCTTTTTTGGNNCCTCGGCCCTTTTANAACCTAGNGGATNCCCCCGGCCCTNNG
GGAATTCNAATNCAANCTTTTNGATNCCCGNNACCCTTGNGGGGGGGGGG

Sequence 1960

TATAGGGCAAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGG
AAGAAGTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGT
GGACCTATACGGCAACCTCCTTTGCCAGGAATAATTTATAAACATCCTGCAGGAAAAATG
GTAAAGCCCTTGGTTAAATTTATTGGCTTCATTATGTATCTCACAACACTTCTTTCTG
TTTTAATCTAGGAATAGAACTTACTTTTGAAATACAGNACCTGCCGGCGGCCGTCTA
GAACTAGTGGATCCCCCGG

Sequence 1961

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGCAAGGAGGCAAGGAGATT
ACATTTTTCTTATTTCTACTACTTTTTGTGCTAACACCGTTTAGCTGGTGGGACAGGN
TCTAAGTATTNGCTAAATATTGNTCTCATTATTTGAACATGTAAAGATGACTGCATT
TTATATATTTCCCTTTAAGTTTGAAAAGTGAACACTTTCTTTATATAAAATTCATT
GCCTATTGTCTCAGAATATCACATATAACTGGTGCCTGG

Sequence 1962

GCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGTTTGTAGATGGAAGGAAGAA
CTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACC
CTATACGGCAACCTCCTTTGCCAGGAATAATTTATAAACATCCTGCAGGAAAATGGTAAG
CCCTTGGTTAAATTTATTGGCTTCATTATGTATCTCACAACACTTCTTTCTGTTTTAG
TTCTAGGAATAGAACTTACTTTTGAAATACAGTACCT

Sequence 1963

CTACTATAGGGCGAATTNGAGCTCCCCGCGGTGGCGGCCGAGGTACCCGGCTTGGTGAGG
AGTCCCAGATTGTGGAACAAAGTATTCCTCTGTTCAATACCATCTTCAAAAAGAAACAA
TGACCTAGTGTGTCAAACCCAATGGTGTCTTTATTAGCAAGCCATTTGTCCCATGCACA
GTGATGCACCTTGAGAAGCTGTGATGAAATAGACAGGCCGTCCACAAAATGTTGCAATGT
CTGTATCCTCCTTTATAATCCACGTCACCACACAGGTGAAAATGAACAGGGTATCGCCCC
ATCTGCTGCTGACCCATGTTGTTTCAATTCACATAAGAAAGGATGGACTGGAAGTAAAA
ATTTTTCAATTATCATAATGGTGTTCCCCCAAAAGGTTATTCATTAAATTCAAAAAAAT
TGGGCACCTGGATTTTTTTCTTGCCTTAGCCATGGAGTCCCTCCAACCTTCTTCCC

Sequence 1964

Table 1

ATNGGAGCTCCCCGNGGTGGCGGCCGCCCGGGCAGGTAAGCTCCACAAGCCAGAAGATTAGT
CTCCTTCCCTGTAGCCTCATCTAGCTTACTTATTCAGACTTTCTGTTTACAAGGGGTTTG
TTATCTTCATGAAATTTTAATATGTGTAAGTTAGAAATGAAATTAGAAAAAGAGGTTCTT
GCTGTAAACACTGGGCANGAGTAGCTCANAAGAAGACTGTGGTTCTTGGATGCCCTCATG
CCTTTGTTCCAGTGCAGGTGCCTAGTGGAGGGTGCAGTGTCTTGCAACATAGAAGGACC
CATTCTTGACAGGGAGCTTGATGGCTTAACCTTTCTTNGGAACCGGGAAGGGAGAAGGAAAG
GGCCTTTGTTNGGACCCCCAACCTTTTGTGTTNGNAATTTGGACTTGGNGCTTTTTTTTGN
ANAAANAACCCANCCCGGAAAAAANTTCCCCCTTTTTT

Sequence 1965

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCTCAGAT
GAAGCTGAGCTATCAAGTGACTTGGTTCAAGACCTATCTTCAGACTGTCTTCTTCTTA
CTATGCAGATCAACATCCTATGTAAGCTGTGACCCAGGCAGTAATTAGTTTACAATC
CTTCTTCAAGATTGAGGGACCCCTTTTCCAGACTATGTTTTCATGAAGTAAGCTGGCTGG
CCTTTGTCTCCCAACATTTATGGAAGCTTTTGGTGCCTGATGTATACTTGATGTCAAAC
TCTTTCCCATTTTTGTGTCCCTCTGGACACAGAAGTCAGGTAGGTCCAAGACTTCGGTGT
CCTTTTCTTCTCTGAGCTCAGTTTTTTTTTGTTCACAGNAAATGTTTATTTTGTTC
TATTATGCCCAGGGGAATTTACCCTACAAAAA

Sequence 1966

CGCTTTCTCATAGCTCACGCCTGTAGGTATCTCAAGTTTCGGTGTAAAGTCCGTTTCGCT
CCAAAGCTGGGCCTGTGTTGCACAGAACCCCCGTTTCAAGCCCCGGACCCGGCTT

Sequence 1967

CCGGGCAGGTACGCCTACTCAACCCGGCTGTTCAACATTGATGGCATCAGCATCCCATAC
ACATGGAACACACCGTTTTCTATGATCAGGCACAGGGAAGAATGCCTTTCTTGGTTGAA
ACACTTCATGCATCCTCTGTGGAATCTGACTATAACCAGATAGAAAGAGACATGGGTTT
TAAATTCATGCTTCAATATCCAAAGGAGATCGCAGTAATCAGTGCCCCCTCCGGGTTTAC
CTTAGACTCAGTTGGACCTTTTTGTGCTGATGAGGATGAATGTGCAGCAGGGAATCCCTG
CTCCCATAGCTGCCACAATGCCATGGGGACTTACTACTGCTCCTGCCCTAAAGGCCTCAC
CATAGCTGCAGATGGGAAGAACTTGTCAAGGATATTGATGGAGTGTGCTTG

Sequence 1968

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAATACGACTTCATCATGCTGAGT
TGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTC
ACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGG
AGTCCGGAGGAGCAGTCTTCTGTCCCGCTGGAACCCATGGTCCACTGAAGTTCCCTTA
TGCTACTTTCACTGAGCATCCTATTGAAATACACCAAGTTGAGAAATTCCTTGA

Sequence 1969

AGGTAAGTATCTAACCAGATATTTTGTGTTTCTCATCCACCAGTCACTTTCCAGTCTT
TTCTGTATCCCTTGCAATTTGAACAAAGCTTGGTGAATAGTGTGCACACAAAAAGCACAC
TAGGTGAAAGACAGATACATAAAAAGGGTAAAGTCAGGATATTTTAACCAACCTATCAA
GCTCTAAATATAANCCTCCTTGGTAGTTTTCTCTTTAACCCCTCTCTCCACTGTTGGATGA
AATTTGCTGCATTCAATTCAGTTCACCCCACTTCTTCTTAACACAAGGTCAGGGT
TAAGCCTTCGGTGTCTTAATCCAGAGGGAAAATTACTTATTTTAAAAAGCAGTGAAAAA
CACCCGCATTCCCTTGGC

Sequence 1970

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGACCTGACGCTGGGAGGAGATGCTG
CCACCTAGGTTACTTGTAGGACCTATACGGCAACCTCCTTTGCCAGGAATTTTATAA
ACATCCTGCAGGAAAATGCAGTGAAGTAGAAGAGACAGGGATATCCAGAAGGTTATGCA
AAACATCAAGAGAAGATGAGAGGAGATGGGAAGAAACAAGAACTTGACATGCTTGGTGT

Table 1

TCTTGCCCCAAGCTTTGAAGAAGTTTACAAAAGTCTATATGTCAGAATACACATTTCCCACC
TTGCCCAACAGTGGAAAAAAAAAANNAANNAATAGGTACCT

Sequence 1971

CCGCGGTGGCGGCCGAGGTACAACCAACCCCCGGGTATCCATAACCTAACAATAACAATT
GTTAAGCATTTCGGCCACTCATGTTTCTTCAGCTCCCCCACCTCCTCCCTATCCTCCCAGG
TTCCCACTGAATTATATATCATTTTCATTCATAAATAATTCTGTATATTTAGTTACAGCTC
AATGAATTTCCACAAAGTGAACATGCTCATGCAAACCAACCTGCACTGGGAAATAGAAA
TTACAAACACCCGGAGCCCCCTCTGCAATACTCTCTCAGTCCTTTCTCACTCCTTCCCA
AAAGAGTAGCTACTATCACCTATTGTGAACCTTGCATATAAGGATTCATAGAACATGTGT
ATTTTTGGTTGGCTACATTTGTCTAACATTGTTGGTAAGATTTATCCATGTTGTTGCA
TATAGCCATAGTTTATTTA

Sequence 1972

ACGGTGAGCCGTTGCTTGTCTCAAAGAGCCATTTCTTGAACGACCCGTTCCATTGGCGC
ACCATCTCGGTGTGTGAAGTCGACCGACGGAACAAGACCAAGCCTGTGACCCCGCCATG
TGCCAGCTCCACTCTGGAGCAAGCTCAACTTGCCACCCGATGAGCTTGGCCAAGTTCTTG
TGCTTCAATAAAGCTNNGNACACTACCATCTTCGCTCAGGTAGGGCATTGACACCCGCGC
GGTGCAATATTCGATGCGCTTCCAGACTCCAGTGGCAGATAATCATAGTAGTACTGCAT
GTGGTCTTGGCCTGGAACTCGATATTGGCTGCTGAGCCCCAAGCCGGCAGGCACGCTT
GTAATCGACACCCATTTGCAGCTGCGCAACGACTNCTTTTCCGCTCCCCGGGGCCTCGAT
ATGGCCCAAC

Sequence 1973

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCCGCCGGGCAGGTACCTTAGC
AAATAGATAGTTTATTACCAACTATAATCACCTTAACAATAAAAGCTCTCTTTTCGAGA
ACACTGCGTGTGAGGCACTTCATGAAAATTATACTAAACACTTTATGAAAATTATCTCTA
GCTGCAAAATCCCGCGGATGCTATGCAAAATTAGGTATAGCTACACTTTGCTGATGGGGAA
AGTATAGCTTAGAGAAGGTAGACGAACTGCCCAAGGCCAGAGCTATGTGGCAGAGATGGA
ATTCAAATGCAAGTATAAATAATAGAATAATTTTCAGTTGGAAATTTCAAAAAGCTGTTT
TAGTTACATTGATGTTAAATCTGTTATTTCATTTAAGATGAAGATGGCAAGGGGAGATAA
AATTACAGGGAAGTGGTGAGGATAGAGCTGAGGAAAGAACTTGGAATGAGATTTAAAA
AGAAATCTGGAAA

Sequence 1973

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGAGCGGCCCGCCGGGCAGGTACCTTAGC
AAATAGATAGTTTATTACCAACTATAATCACCTTAACAATAAAAGCTCTCTTTTCGAGA
ACACTGCGTGTGAGGCACTTCATGAAAATTATACTAAACACTTTATGAAAATTATCTCTA
GCTGCAAAATCCCGCGGATGCTATGCAAAATTAGGTATAGCTACACTTTGCTGATGGGGAA
AGTATAGCTTAGAGAAGGTAGACGAACTGCCCAAGGCCAGAGCTATGTGGCAGAGATGGA
ATTCAAATGCAAGTATAAATAATAGAATAATTTTCAGTTGGAAATTTCAAAAAGCTGTTT
TAGTTACATTGATGTTAAATCTGTTATTTCATTTAAGATGAAGATGGCAAGGGGAGATAA
AATTACAGGGAAGTGGTGAGGATAGAGCTGAGGAAAGAACTTGGAATGAGATTTAAAA
AGAAATCTGGAAA

Sequence 1975

GGCGAATTGGAGCTCCCCGCGGTGGCCGCGGCCCGGGCAGGTACAAGGGAGACAGCATGC
AGGGTGTGTTTCAGAAGAGCTTGCTGAGGTGCTCGGCTCTTAGCATTAAAAATGTGATGTT
GGTATATCATCCTGATAGAAAACACTGCTTTCCAAATCCTAGTCACTGGATGGGAGGAAA
GTAAGAACAGATTCTTCCAACCACTACTGATTTGTTATAATTCTCCCAATTGAAATTGGG
ACAAAATTTGTAACATGCTACTCCGAAATTGATCACATTCTCAATTCTGTCAATAGCAGA
GAATTTAGCCTCAACACCACCAATTCAAAAATAAGTTTAGGTCTTGCCCTGCCTGATTAT
GTAACAGAAAAGCATAAAGTTTGCAGGGTGGAGCGGGAGGATTTTCTAGGAACTTCTCT
TCTCTTCATTAACCGTGTGAATGAGTAAGGACAGTTAAT

Table 1

Sequence 1975

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAAGGGAGACAGCATGC
AGGGTGTGTTGAGAAGAGCTTGCTGAGGTGCTCGGCTCTTAGCATTAAAAATGTGATGTT
GGTATATCATCCTGATAGAAAACACTGCTTTCCAAATCCTAGTCACTGGATGGGAGGAAA
GTAAGAACAGATTCTTCCAACCACTACTGATTGTTATAATTCTCCCCATTGAAATTGGG
ACAAAAATTTGTAACATGCTACTCCGAAATTGATCACATTCTCAATTCTGTCAATAGCAGA
GAATTTAGCCTCAACACCACCAATTCAAAATAAGTTTAGGTCTTGCCCCTGCCTGATTAT
GTAACAGAAAAAGCATAAAGTTTGAGGGTGGAGCGGGAGGATTTTTCTAGGAACTTCCT
TCTCTTCATTAAACCGTGTGAATGAGTAAGGACAGTTAAT

Sequence 1977

CCGCGGTGGCCCCGCGGCCGAGGTACATGACATTATTGTACGCTGTTGTITACATTACAG
GAATACTTCGGATATACCAATGCATGTGAAGAATGGGTTTCCCCTCAGTTTCACATAAAC
TTAGAAATGTCTCAACTGACATTCTTTTTCTTTTTTTTAAATNTTTAATTNTTTTTTTT
TTGAGACAGTTTCGCTCTGTCCNCCCANGCTANAGTGCAGTGGTGTGATCTCAGCTCACT
GCAAGCTCCGCTCCAGTGTTCAGGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CTACAGGTGCCCCGCCACCACGCTCAGCTAATTTTTTGTATTTTGTAGAGACGGGGTTT
CACCATGTTAGCCAGGATGGTCTCCATCTCCTGACCCTGTGAACCACCCGCCTTGACCTT
CCAAAGTGCTGGGATTACAGGGGTGAGCCGCCNCGCCCGGCTCA

Sequence 1977

CCGCGGTGGCCCCGCGGCCGAGGTACATGACATTATTGTACGCTGTTGTTTACATTACAG
GAATACTTCGGATATACCAATGCATGTGAAGAATGGGTTTCCCCTCAGTTTCACATAAAC
TTAGAAATGTCTCAACTGACATTCTTTTTCTTTTTTTTAAATNTTTAATTNTTTTTTTT
TTGAGACAGTTTCGCTCTGTCCNCCCANGCTANAGTGCAGTGGTGTGATCTCAGCTCACT
GCAAGCTCCGCTCCAGTGTTCAGGCCATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGA
CTACAGGTGCCCCGCCACCACGCTCAGCTAATTTTTTGTATTTTGTAGAGACGGGGTTT
CACCATGTTAGCCAGGATGGTCTCCATCTCCTGACCCTGTGAACCACCCGCCTTGACCTT
CCAAAGTGCTGGGATTACAGGGGTGAGCCGCCNCGCCCGGCTCA

Sequence 1979

CCGGGCAGGTACGCGGGAAGAGAAGGAGAATATACAGTCTTTGTATTGACCTGTATGCT
TCTCATTTTTGTTCTTTTTGTTCTTTCTATAATTCTGGATTTCATCTTGTTTAATAGC
CCTCAGCCTGAGGGATATCAGCATTCTTGCTGCTATGGATCTCTAGCAACATATAATTT
CATCTTTTATGCATATCCAGAAATTGTTGCTTTGCTTTGATTTTTGTTTTGTAGTTTAC
TCTGTGTAGAAATTTCTGGTTACCGTTTTTTCTTCCAGCATTGTGAGATATTGATCCAG
TGAGTTCTGTCATGCATTTGCCTACTTGGGTGAAATGTCCACCAGACGGTGTGATATT
AGTAGCCAGAAAGCTGCCAAGGGGTTGAATGACACTATCTGAAGATATGAACAGTTTG
CTCTCCATAGGGAGGATTTTCATCAACAGGAAACAGATGCCTGGAAGGCATTGGATTGCT
AAGTGTCTATGCCATATGATTCTGCTGTTTGCCTTTGATTAGAAATGCTGAGCTGACTCA
AAGTCAAAGTGNAAGTACCT

Sequence 1980

CCGCGGNGGCGCGCCGCGGCCGAGGNACGNNGNTGGAGGGGGTGTNAAAACCCCCNGACG
CCGGGAGGAGANGCTGCCACCTAGGNNACTTGNAGGACCCNATACGGCAACCCCCCTTNGC
CAGGAACNATNNATAAACATCCCGCAGGAAAANGAGNCNATATGNCAGAAACACANNTC
CNACCNNGCCCAACAGTAGAAAAACNNAAGAAGAGAAAAACAANAAAAANGACAAGGAA
GNCAANGGAAGNCAGCAANGNGANGNGNTTGGAGGGGGAGCCCNCAAGGGAANNAAN
GCCCCNGGAAGAAGAGGCCAGAGAGCNNGCGCACCCNCCNCCCGCCANGGGAGGAGCCAA
GAAGCCGGCNGGCNCAACCCGCAAGAGGACCCCAACAGAGCCAGCCANACCCGGCANC
CCCAACNNGGCCNCCAAACNCCAGAACCGGGAGAGGANANGGNNGGGNNAGNCAAN
GGGCCAAGGGAANNNNNNAAAGCAGNCCCAGCCAAGACAGGGCCCCAANNACCACANACC
AANNAAANNANNANANAGGCCCCCNCAAAACCCANGGNCAANAAGAGAAAAGAA

Table 1

Sequence 1981

CCGGGCAGGTACAATCATTACATAATCATGACATTTTAATTCTTAATTACAATGCCTTTC
CAACTATATAAAAAATATGTCTAGTGACACATATTTTGAAAGCTTTCTTGAAAAACATC
CAGAGATTGTGTTCACTATCTATATAAATGAGCTTATACTGAACCTTAAATATGTTT
ATTGAGCCTAACAATCAGAAAAAGAAAACGTTTTTAACAGTATAAAGTTCAGATGAGTC
CACTTGTCTTGGAATTTATTTTGATTTTAATTAGAAGAAAGACTGCCATTAGAATTGTT
TTCTAATGAAATCTTTATAAATCTCTGGGCAGTGCCCTGTATCTTTATTAGAAAGACTT
CTTATTTTAAACAATTTTATTTGGAAGAAGTNCCTACTCATTT

Sequence 1982

AGGTACTCAGTAACTTCCTGGGACCCCTTTTGCCCTATCTTCTGAATAGAAACATAGAGCT
TCTTGACAGATATTAGCTCCTGGCTTTATTGCTTGCTCATTTCTACATAACTGGGTCAAC
CCTGGGGCACCACAGTGACAGAAAAAGAAAGAAAAATAATGGGGTCCCCACCCCTGTAC
TCTTTGGAGTTTATGGTTCCCTTTTCTAGTTCTTCTTGTCAAAAAGATAGGTTTTCT
TCAGGATTTTAGATCAGCTATCACCGCCACATTGCAGCTGTATGATGGGGTGGCCCTTG
ACACAGGACCAAAAGAGAGCAACAACAACAGCATCAACAACAACCATAGTGATCCTACCC
CCTACTCCTGGTGACGGCTTCTGGGGCTCCTTATCCCCATTCTTGGGACAGCTTATCTC
AGATTTTCTCTGCTCACCCCTGCTATGCAGTCCAAATTTGATATTTGGAAGTGGTAGTA
TCTTCAGATCAAGTTGAGAGACANANNANAAAAANNNNNNNNNNAAGTACCTGCCCG

Sequence 1983

CCGCGGTGGCGGCCGCCCGGGCAGGTACGTATAACAACATGAATTCATCTCAAAGACATT
ATGTTGAAGCCAGATTGACATAACTCATTCTTGTGATTCCATTTATGTGAACCTTTGGG
AATAGTCAAACTTAGCTATGGTGACAGCAGTCAGGGCAGTAATTATCTATCGAGTGTGG
AGATTGACTGAAAAGGGCACAGGAGAATTTCTGAAATAATAAAATGTCTATATCTTG
TTTTGCATCGTAGTTACACAGGTGTAGACAGTTGCTAAAACGCTAAAACTAAATGTGTA
AGATTTATGCATTTTAGTGTATTTAAATTATAACCCCGAGAAAGCATTGCCTCATTTTTT
CTGGAGGGTAAATATGCTCGTTAGGAGCATAAGGGGATGATTTTGAGAAACCTTGCTCT
GTCATTCTGTGAGTAAACCGCCACTAATTTTCTGGTTTCAAAAAAGCAAGGTCCATTGA
TGAAACTCCTTTGTGCTTAATGACAAATAACATTGATAAGGCCTACTGGCAACAAGAGT
GNGGTTGGTATATCTTTTGGTTTTAGNGACTAAATTTGGANGAATGATATTTTCATGG

Sequence 1984

CACTATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTGGTGT
ATTTATCTATTGCCATCATTTGAGGGACACCTAGGAAAATAAATTTTCAATTGCATAAAA
CCTAATTATTTCACTGCAGACATTTGATCAAAGGCTTACTTGATCAAAGGCTTGTCCC
AATTGCTCCTCCAGGGATTGTTCTGCTCAGATAAGATATGGTCCGCTTTAAGAGAGCT
TGTTCAATTGAGCAGCGAGTTCCAGATCAGATCCCTCTCTGCCAGGAGATGTGTAACC
ATGTGATGTGATTGTAAGTTTTGGTCATCTGCTCCACCCTGTCTGGTGCCTAAGAATCA
TGTAACCGGAAAGTCTCTTCAGCAAGGAC

Sequence 1985

CCGCGGTGGCGGCCCGAGGTACAACCTTGACAGTTTATAAAAAATGCTAACCTATATCAACA
TTTTTCCCACCAAAGTGTTCCCAAGGGCAAAAGTAAGTGAATACATGTTTCCATGCTTG
TGTCAGGGGCACACAGCAAGGGAAGGCAGAATGGGCATGACCTAGATTAGATTCCAGAAG
CCTTCAAATTCCTTATAAGACTTGGGACTGCATCTTAAATAATATTGTTTTTTTTATT
CTTTGATAATAAAGAATGGAACCAAACTCCTGGTTGTCTGATTCTTTGCCAGTGCTCTT
TCTTATGTCTAACACTGCCTCGTCTTATGAATAACTCTGACATTACAGAGAAAGACTATT
GTTTGTTGAGTTCAACACTCAATTCCATAGGTGCTAGCAATTATGAAAAAGGCTGTTAGT
ATCCAGCGGGGAAAGCAAANGATCCCGCAGGTGGTAACACCCTACTGAGAGCAGAGGGGG
ATGAATACA

Sequence 1986

CCGCGGTGGCGGCCCGAGGTACACTTGGTGCAATAAAGTGATCTTTAAAGTGTGTTGAGT

Table 1

TTGGACACAGACCCGTGAAACCAACACCATAATCAAGATTCATGATGAATATGTTCCACG
TAGTTTTTCAATTTAAATCCCTCTCAGTAGCATATTTGTCTGTTTAAGAGCCATTTGCATTT
TTTCCATAAATTGCTTGTTCCCTCTCCCCCTGCCCCGCCCCGCGTACCTGCCCCG

Sequence 1987

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCCGAGGTACACTTATAGTTGAGAGCCA
AGTCTCCCTTATCATTGGTGAATGAGAATGAGCTACTGAAAAACAAAAGAGGGTCTTCTA
CTCAGCCTCTACCCCTAATATTTATATCAGAAGCAGAGATTAAGTGTCTTACTCATTCA
CACGTTAATGGAAGAGAAGGAAGTTTCTAGAAAAATCCTCCCGCTCCACCCTGCAAACT
TTATGCCTTTCTGTTACATAATCAGGCAGGGGCAAGACCTAAACTATTTTGAATTGGTGG
TGTTGAGGCTAAATTTCTCTGCTATTGACAGAATTGAGAATGTGATCAATTTGAGAGTAGC
ATGTTACAAATTTGTCCCAATTTCAATGGGGAGAATTATAACAAATCAGTAGTGGTTGG
CAGAATCTGTTCTTACTTTCTCCCATCCAGTGACTAGGATTTGGAAAGCAGTGTITTTCT
ATCAGGATGATATACCAACATCACATTTT

Sequence 1988

NACTCACTATAGGGGCGAATTGGGAGCTCCCCGCGGTGGCGGCCCCGCGGCGAGGTAC
GCGGGTATCCAGTTATTTCAATTGGTTGAAATAGCTGACCGCTTATAATAAAGTAGTCTGT
GGACTGCTTAAATTTGTAGTGAATTCCTGTGTGTGCATTTTGTAAATGGTCATTCTCAG
TCGTAATGTCTTTAGAAAGTCATCTAACACAAATACATTGAGAGAAAGTTTCTAGCAT
AAGCCTGGTCATAAACTCCACCTGATAACTTGGGGCTTGATTTAAATCAAGTGGAAGCTC
TGTGCAAAAAGATGGATATGTGACCAATATAATAATGGCTCCTTTTGCAAGACAATACT
TCTGAAATTAAGGGGAATGCATTAAGATGTGTATGTAATAATAATTGAAAATAATTTTG
GAGGCAGAAGTTATTGTAAGTGAAATCTGTCTATAAGGTGAAACAATCCT

Sequence 1989

CCGCGGTGGCGGCCGAGGTACTGGGGCCTTACTTCCCTAAAGACCCAGGGAGGGGAGAGA
AAGTGCTCTGCTTGATCCTAAGCACAAATGCAATACAGCAACATCAGTAATGGTAACTG
AGTGCTTACTGCATGCCAGACCCGTGCTAAGCTCTCTCCATGCACTATCTTAATGTTAC
AACCTCACACAGTAAGCATTATTAACAACAGCACTTTACAAATAGAAATTTGTTGAGGCT
CAGAGTTGCCATAGCTGGTGAGCATCCACAGCCTACATTCAAACCCAAGTTTCATTCCAA
AGCTTTGCTTTCTGCTGCTGTATGTCTTTTGCGTCATCTTCGCATATTTAACCTCCTTG
GCTCAACTGGGAACCTTTGAAGGCTAGGGCCATCAATTACATTTTGTCTTCAA

Sequence 1990

CGCCCCGGCAGGTACAGTGTGAGGGCTTATGCTACCAGACTAGGTGGAGGAGATGACATG
CAGATTGAGGAGAGGATCCAGGGCTCATGAGGACGTGGAGGTTTTGTTCAAGCATTGGG
TTTTTGTGCTTTTCTGTGTAACTTCTCTTTACCTTCCATTGAGAATGGCTCCAA
ATTCTTTCTTCAATAGTGGAAGTATTATTGTTAGTCAGGTTTTCAATACTTAATAGTGG
TCTGTATTTGTGGGTGCATGTGGTATTTTGGTGCATGCATACCATGTGGAATTATCAGAC
CAGGGCNGCCGGGACATCAGTCACCCCAGACATCCACCCCTTCTTTATGTTGGGAACATT
TCACTTNTCTCTTTGAGCAATTTTGAACAATGCAACAACTACTGTTAGCTTTAAACAC
CCAACTGTGCTATCAAACAGTACATCTTACTTCACTAAATGNGGNTTTTATGCCACGCC
ANNCTTCCTGGATAAACTTTGTCTAAAGTGTTCAAAGAGGCTGCTCAAAGGAAATGTG
GCTTGTTTTGGGANGTCTGAAATGTTTTCAAAATTTCTGGCTTTGAAAAA

Sequence 1991

CGCCCCCTCGTGGTGGCCAGGCGCGATGCGCGCGGCGTGGCAGAACTGCTGCGTCCGTAC
ACCAAAGAGGCGCTGGCGCCCCGGCGAATTCCTGCTCGAACTGACGCCGAAGGATGGCAAT
TGGGTGCTGGTCAGCGATGCCCTGGTTCTTCAAGGAAGGCGAGGCGACGCGCTGGGAAAAG
GCCCGCTATGGCGAGTTCCGCGTGCTGCCCGATGGCCGCGCCTTGCTGGTGGGCATGCGC
GGGGAAGATTTACAGGCACTGTAACCGCTTGATTGAACAAACCCAATG

Sequence 1992

CGGGCAGGTACTTTGGCACATGCTGGTAGCCAGGAGTCTGGGCCTGAAATTTGGTCCTGA

Table 1

CTCCACCCTCATCTCTCTGTCATGACTTCTCTGGGAGATACAGCCTCTCCATTTTACACTG
AGAGAACTAAATGAGCTCTAAAGCTGCCCTGACAGCTGACAGTCAAGGTTAGCATATTTT
TGTGTGGCTCTGGCAAAAGTACCT

Sequence 1993

CCGCGGTGGCGGCCGAGGTACACTTATAGTTGAGAGCCAAGTCTCCCTTATCATTGGTGA
ATGAGAATGAGCTACTGAAAACAAAAAGAGGGTCTTCTACTCAGCCTCTACCCCTAATAT
TTATATCAGAAGCAGAGATTAACCTGTCCTTACTCATTACACGTTAATGGAAGAGAAGGA
AGTTTCCTAGAAAAATCCTCCCGCTCCACCCTGCAAACCTTATGCTTTTCTGTTACATAA
TCAGGCAGGGGCAAGACCTAACTATTTTGAATTGGTGGTGTGAGGCTAAATTCTCTGC
TATTGACAGAATTGAGAATGTGATCAATTTAGAGTAGCATGTTACAAATTTTGTCCCAA
TTTCAATGGGGAGAATTATAACAAATCAGTAGTGGTTGGCAGAATCTGTTCTTACTTTCC
TCCCATCCAGTGACTAGGATTTGGAAAGCAGTGTTTCTATCAGGATGATATACCAACAT
CGCATTTT

Sequence 1994

CGGTGGCGGCCGAGGTACCGGTTGATGTAAGCACAGGGATGGTGGGGACAGGGTGACCAA
AGTGAACCTGGGCACGAGATGAGTAGCTGGTATATAGTGACTTGGAAAGGCAAGGTGCTTGA
AATTTCTTGAAAAATCTCTGCAAGTGCACAGTAGAACTATTATCATTGGTTACGTGCTT
CAAGAGGACTGGGCAGATGGGGGGCAGGAATAAGAGAGCCACTATTCATTGACAAATT
CTTGGACATTTTGATTTCTGAGCCATATGGATGTGTGTCTCTATCAAAAAGAATAAGTGAA
AATGTTCAATAGTAAGAGAACACTTTGTAAATCTCTGGCTGCTGCTCTTTGTGATTAGCC
TCTCAGCACTCTTATTTGGAATAATCAGAAAAATACAACTATCTAAATTTTGGGAGGAGA
GTATACTTGTGGAGATTTGGGAAGAAAGAAAATAAGTATGAAAAGTTTCCCCAATAATA
AAATGAAATTCATTGAAAGCCATTTCAAACATTTAGAAAGTTAACCCAGAAAAATAGAA
AGG

Sequence 1995

GGCGGCCGCCCGGGCAGGTACTCGNNAAGCAGTGGTAACAACCCAGAGTACTCGGGAAGC
AGTGGTAACAACGCAGAGTCCCGGGAAGCAGTGGTAACAACGCAGAGTCCCGGGAAGCAG
TGGAACAACGCAGAGTCCCGGGAAGCAGTGGTAACAACGCAGAGTCCCGGGAAGCAGTG
GTACCT

Sequence 1996

CGGCCGCCCGGGCAGGTACCNNNNACTNATTTNTGCTGTGATCCTAAAACACTCTAAAAGA
TAAAGCCTATTAATAACCATATTTTTAAAAAAGTACAGGTGTTCTTAAGATTAAGTANTG
AGTTCAGAGAATAAATNGAGGATGAGATGAATTTCTAAAAACAGCAGCACCATACATCAA
AAATACCCAGCTAGAAATTATAAATTTTAAAAGATCACAGAAGATAAACAAAAACAAAC
CCCTCCCCATCTTATCTTTATTATTTNTTCTTATTTGTATAAAAATNAGGAGATATAAT
AAATAGAAAACACTACTGAAATATTTACAGGGATTCATGAAAACAGATTTTAAGAAATTA
AGATACATATTGTCAGGTGTGGTGGGTCACGCCTGTANTCCAGCACTNTGGAAGGCCAA
GGTGGGTGGATCACTTGAGGTGAGGAGTTTGAGGACCAGCCTGGCCAACATGGCAAAACC
CCATCTCTACTAAAAATACAAA

Sequence 1997

CCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACC
TGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCC
TTTGCCAGGAACATTTTATAAACATCCTGCAGGAAAATGGCCTCTTTAAATATACACTTC
TCTGTAGTGTATGCTAGAAATGGAGTGGCTGGAATAAAAGTGGCTGAATCATCTTCAACT
CTAGTAGCTGAGACCAATGATGCTGACCTCCCTCAAAGCTGCATTTCTGAATTTCTGAA
GGCAAACGTCTGCCTATATTGTACCTGCCCG

Sequence 1998

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTCTAATCCCAGT
TTACATTTAAACACTTCAAATGGAGCCACTAGGACTCAAAGTTGCTAAATACACCCATG

Table 1

CCCTCTTATCGCCTTCCACTGGGGGTGGTTCTTCGGTATTTTAAGTCTTGAAGTTAATT
 TTTGAGGAAAAAAGTAATAGACATGTGACAAAAACAGGAAGAAGGGACACAGTTCAAC
 TGGGTTGTAGCTCTAATCTCACTTTATCAGCTGCTTGAAAGAGGGAAATGAAGGACAGAG
 CGGTAGGAAGTCTGCACACACCAACCTCATGGAGACCAGCTCAGCCCCCAATGCAGTCAA
 GCTACCTAACCTCCTGGAAACATAAAGATCGGCGTGTTACTTG
 Sequence 1999
 NCCGGGCAGGTACTTGCTTAGTCAGTTCTGTGGGCCAGAGGACACTCATGGGGAGAGATC
 AAGGTTACTTTTTGCAGGTGGGGCATTTTTGTAAGTGAATAAAACCCAGTCAGTAAAGTA
 ANCNACATGCNGAATCTANGCAAGTGTTGCAATGTATGNTGCTCTTGATCTGAGGAAGA
 CCATGCATTTGACTCAGACTAGAAACCTACACCACAGAAATCCCACCCACAAGCAATGCT
 CTATTACTGTAGGTACCTCGGCC
 Sequence 2000
 CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGGGCTACAGGCAGG
 CACCACCTCACCAGCTAATTTTTGTATTTTAGTAAAGACAGGGTTTCGCCATGTTGC
 CCAGGCTGGTCTCGAACTACTGGCCTCAAGTGATCAGCTCATCTTGGCTGCCCAAAGTGC
 TGGGGTTACAGGCGTGAGCCACCATGCCCGCCCCCGCAGGACTTTCTGCTGTTTCTCTC
 AATTTTATGTAAGTAAACAACAGCAACAATAAAATCCCTGTCACTTGAACACAGAATGA
 ATTCTGCTTTATATATTTGTATAGTTTGTATAGATATTTGTATAGTTTATGAGGCACT
 GAACTTTCCAGAACAGCAACTACTGTGTATACTGATGGGGCAA
 Sequence 2001
 AGGTACATTCTAATCCCAGTTTACATTTAAACACTTCAAATGGAGCCACTAGGACTCAA
 AGTTGCTAAATACACCCATGCCCTCTTATCGCCTTCCACTGGGGGTGGTTCTTCGGTATT
 TTAAGTCTTGGAAGTTAATTTTTGAGGAAAAAAGTAATAGACATGTGACAAAAACAGG
 AAGAAGGGACACAGTTCAACTGGGTTGTAGCTCTAATCTCACTTTATCAGCTGCTTGAAA
 GAGGGAAATGAAGGACAGAGCGGTAGGAAGTCTGCACACACCAACCTCATGGAGACCAGC
 TCAGCCCCCAATGCAGTCAAGCTACCTAACCTCCTGGAA
 Sequence 2002
 CCGGGCAGGTACTTTATATTACTTACTTGTTCACTAATAAACTTCTGGCATTGCATGTTT
 ATTATTCTAATTTGGATTAATAAATATGTCAATTTATTTTATAAGTCAACCGATATGCTT
 TTTTCAGCTTATAATTTGTCTACTTAGTATCCTCTAAGTAGCATATCCTAATCTATTCT
 TAAGATTACATTGTTATATGCTTGACATAACTTTACAACCATCACCATGGAGAAAGAGA
 TCTATAATGTAGACAGATTTTAATTTAATCATAATATCATCACATTTAATTTATTGGA
 ACCTACACAGGTGCCATTTAAATAGGTGACAAGCTAATATTAATAATTATGATGGGAGTTG
 GGGA
 Sequence 2003
 ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGTCCCCTCACACCTTCTGTTGATGCC
 TTATTACCACCAGGCAGATTAGAAGTTCTGGTTTCTCTAAATTTCAAGTTGACTCTGTAAA
 CTTATAATACTTATCTTATAATTCTGTTGAGAATATAAAATGAAATGATGCATGTAATAT
 ATCAAGCCACTGTCTGATGTAGAATAATATTACTAACATTTATGATTTTGAAAATTAATA
 ACAAAGTTGGAGGAAATACACCACCAACTTCAAATGCTAATATGAAGTTACAACGATCAA
 GATAGTGTGGCATTGGTGTAACAAACAGACATGCTTATCAATGGCGCAGAATTAAGAAT
 AGAAATTAACCTTCTGCTTTG
 Sequence 2004
 CCGCGGTGGCGGCCGAGGTACCTGCACTTCAGACCCTGGCTCCATGTACACCTGTGCTCC
 AAACCTGGCTCTGTGGCTACTGCACAGGTGCCAGCAGCTCAAACAGTCAAACAGTGCCAC
 CCTTGCAATAAGGAAACCTACAAGCTAGACCGGATATCAAGAAAGATTCTTCAGACATG
 ACATCCCCCTGTGGAAGAAAAAGACATTAGGGAGTCCCTAGCAGCCTTTGTCTTTGAAGAT
 CCCTTACTGCTGCTGTGGATGCCACAGCCTTGTGTTGTTGAAAACCTTGCAATCTTCAC
 CAATTCTGATCTTCAGCTGACAAAAGATGCACAGGGGGAGGTTTGCCA

Table 1

Sequence 2005

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTTGGAATGCTGTGTGGAGTCCTTTTCTACTT
TTGTTCTCTGAGAAAGAGAGATTACAAACTTCCCACATTCTCCAGTGGCATCTAAGGAT
CCCTTCCTAAATGGCCTTTCTCCCAGCCAATAGACTGAAGCAAACCATGTCCCTGATGCT
TCCTGCCCCACCACCATCCATTCTTCAACCAACAGCTTCTCCGGGCTTTCACGTGCCATG
CACTTTGCTAAGAGCTTGAGGGAAATACAGCAATGAAGAAGAGATGATTTCTGTTTGGAC
CCAGTGCTCAGGGATTCTCTCTATTAGGAAATCAAAGGAGGCTTCCAAAAGCCCTACAAT
TTTTCCCTGNTAACTAAAGA

Sequence 2006

AGGTACGCGGGAGGAAAACACAACATGAACAGGCAGAGTGACACGCCGTGGCCTCGGGA
AGCCACAATCATGTGGCTGACATGGTTCCAGAGTGTTGGCATTAGGGAGACCAACTTCTGA
GCTGCAGATTACAGCATGGCCATGCAAGCAGGGAAGATGTGCTCTACTCCAGGATCAAG
GAGCAAGCCCATATTTCTCTTGATTCTGGGACTCCCTCTTGAGACTGATTTGCTCTAAT
GTTAGCTCTTGAGAGAACTGGGGTCCCTGCCTTCTTGGGGAGCCTGAAAAGAAGTTTGC
T

Sequence 2007

GAGCTTCTGAACATTTCTTCTCAGACTAAGCTCTTACACACAGTTGCAGTTGAAAGAAAG
AATTGCTTGACATGGCCACAGGAGCAGGCAGCTTCTGACAGATGACAGTCAACGCAAA
CTCATGTCACTGTGGGCAGACACATGTTTGCAAAGAGACTCAGAGCCAAACAAGCACACT
CAATGTGCTTTGCCAAATTTACCCATTAGGTAAATCTTCCCTCTCCCAAGAAGAAAGT
GGAGAGAGCATGAGTCCTCACATGGAACTTGAAGTCAGGGAAATGAAG

Sequence 2008

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTACGCGGGGAAAA
ATCCAAGACAAGAAAAGACTGTAATAAGCTAAATATAACAGTATAATGATACCAGGTTG
CAGGCAGCAAATAGCAAACCTTGAAACCATGGAAGGGAATTCATATAGTAGAGGACAAA
TTTAAGGAGGGTTTCAAAAGTGTAAGAACAAAAGACTTAAACTGATGAGCTAATAGTTGG
ATGACAGGTCTTGAGATCCCAATTCCTTGGGAATAACAGTTTCTGAAGGAAAAACAAC
AAAGAGAACAACCATGTTCAAAGGGAACAAAGGAAAAATAAATCTTCAATTAAGGAAA
GTTTTCTGCTTGNAAAATGAATGACCATTGGGTAAAGAGGGTAAACTTATGAA

Sequence 2009

TCACAAAAAATCGACGCCTCAAGTTCANNAGGTGGCNGAAACCNCGTACAGGAACCTATT
AANAGCATACNCANGGCGGTTTTCCNNCCCTGGNAAAGCTTCCCCTNCGTGGCGCCTCTT
CCCTGTTATCAGGACNCCTGGCCCGCNTTTACNCGGNATACCTGTNCCGGCNCCTTTTCC
TCCCCTTTCCGGGGNAAAGNCCGGT

Sequence 2010

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCCGGGCAGGTACAACGATGCAC
ACAGATGGGAGGAGCTGCCTTGAGCGAGAGGACACTGTCTGAGGTTGACAGAGAGCAAC
ACCACATCAGTGGTGGATGGGGATAAACGGGTGAAACGGCGGCTGCTCATGGAAACGTGT
GCTGTCAACAATGGAGGCTGTGACCGCACCTGTAAGGATACTTCGACAGGTGTCCACTGC
AGTTGTCTGTTGGATTCACTCTCCAGTTGGATGGGAAGACATGTAAAGATATTGATGAG
TGCCAGACCCGCAATGGAGGTTGTGATCATTTCTGCAAAAACATCTGTGGGCANGTTTTT
GACTGCGGCTTGCAAGAAAGGGATTTT

Sequence 2011

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCCCAGCACTTTAGCCC
TGTGTGGCCAGCGCCCCATGCGCAAGCGTCTTTCTGCCCCAGAGTTGCGGCTGAGTCTGA
CTAAGGGGCTTGAAATGATGGAGCTTCAACCACCCAGTCTGCACCTTCTCTCTGATG
GCAGTTCTGACCTGGAGATAGACGAATTGGAGACACCTTCAGACTCGGAGCAGCTGGACA
GTGGACATGAATTTGAATGGGAAGATGAACTACCCCGGGCAGAGGGTCTGGGCACCAAGT
AGACAGCTGAAAGGCTGGGCCGAGGTTGTATGTGGGGATGTGACTGGAGAAGATGGACAT

Table 1

CACTGGGAGGGGGTGTTCGAATGGGGACCC

Sequence 2012

GGGGACCGCCAGGGGCCTCGAGAATCGGTATCCTGAGTCCTCTTGAAGAGCAGTAGAGGT
TGTTTCATTAAAGTCAAACACATTGTTCTTAATTTGAAAACGTGGGCAGAAACAGAAGC
CCGAGACTAATTTTTCCATTGCTAACTCTAGATTCTCGGCCACTGGAGTCTGAAGATACT
CTCTTTGAGAATGCATATTATTTTGCTCACAGCTAAAAACATTTAAGTATCATAGCTGATC
AGTGGAGTGAGATTAAGGTTTCTTTTTGAATCATCAGCTAGAGAT

Sequence 2013

CCGGGCAGGTACGCGGGATGATTAATCTTCCCTTATCCACAACTTAAGTGTGGAGAAAC
AGGAGAAAGTGTGTGCCTAGAAGCTGGATTACGGGACCCATGGTTACCCACTTCTACTTA
TGATTCCGTCATTACTGTTGTTTTAGGAAAATAAACAGATCTTGATTCTTTCATAAAAGT
CGATTCTTCAACAAGCAAATGGGAAAATCGGCAGGCCAGATATGTGTGTATAGCAGCTA
CTGGTTGGAAATTTGGACACAAAAGTCTTTATCTACCCAGCCTGTGAGCCACAAATCTGG
ACTGAGTATAAAAAAGAATAAACTAAATACCACCATGGTCTCACTTATTAAGTGGGGA
ACTAAA

Sequence 2014

CCGGGCAGGTACCCTGGATCGTTTCAGAGATCTAACGTGTTGCCACACCATANCTCTAAG
AAGCTGTGGGGCACAGTTCAAATTCCTANTGGAGTGTATGATTGCACAANGAAACTTTT
AAATATGTTTACTTTTTAATTTCTAATNGACTAAGAAAATCAGCNAGCATAAAAACTAAC
TTTTTTTANAAGGACTCCCCAAAAATTTGCATGTTTTTTCCAGGTNTTTTTATTTTAA
ATTTANNTNTGNTANGGGGCATTAAATTAATNTNGTTGGCCANAATTTTAAACNTTAN
TTGNNTTACCCNTTCGNGCCCCGCCCTTTCTTATGNAAAACCTTNGATTNGGGAAATTCAC
CCCCCNGGGGGGNNNTTGGGCAANGGGGTAAAAATTTCCNGAATTTATTTNCAAAAGG
ACCCTTTTAAATTCGGTNAATNAACCACNGGTTCNNAATCCCTTTCTATGAAANGNG
NGGGGGGNGGGNCCNCCCNCGGTGTTAACCCCCAAAAACC

Sequence 2015

CCGCGGTGGCGGCCGCTTCTCTTACTGATAGTAGGATATTTCTGCTTTAGTTATTGTCA
CCTTAAATATATTTTCAATGTTGAAATCCTCACAGCATGTTTGATGAAATCTAGTTTTCA
AATTTTCTTAGGTATATTTCTGTACGTTGGCATGATAACAAATGCAATAACCCAAAAAGA
CCCCAAAAGCTAGTGAATCCCTTTTGAATCCAAGCATGAGGATTCATCTTCATGTTGA
CAGTGCGTGAATGTTCCGTAGGCTTTGTCAAGCTTGCATACAATAAATTATATTATGTCC
CTTTTTCTTTTAGGGTCTCCTGTTTAAAGGATGGGTCTTCTGGAAGGGCTAACCTGCGG
GAATGGAAAAGTTT

Sequence 2016

AGGTACAATTCCTTTATTCCAAGGCCTGCTAGAATCTTACATGTTTATAAATTGCCTTTA
TAAGCTGGCATGCCTCTTGAGTGGGGACAGACATTTGTTTTTCATGTGGTATGTCGGGA
GTATGAACTGGAAAGACCGAAATCAGTTATAATATGTCAGCATGGAATTGATCGTCGGTT
CTGTGAATCCAAGTTGAGTTGTATTCTGGGCCCTTGCCAACCTTCAGATGATTTGAAATA
TACTATGATTCGTTTAGCAGTAGATGGAGCCCGATTTACATTGTTTGAGCATGGGTTG
TGCCTACAAATATAAAGATGGGTGCAATTCGAGTTGCCAAAACCTGTAATCTC

Sequence 2017

CCGCGGTGGCGGCCGAGGTACGCGGGCGGTCTGAATGGAGGAAGTTGGTAATACTTGGCT
TTTTTTTTCTTCTCTCATGCAAGTTTCCAGGATATAGCTTCTTTTTTGTGTATGTAA
TTGAGACCAAACCTTAAGCTTGGGGCCCTGGAGAGAACAGTTGTGGCCTGCAGGTCATTA
GTGAGGTGAGCAGAAGGGAATCCTGGACTTCCCAGAGAAAGAGGAGACCATGCCAGCCTC
GTGGAACACAGCTACCAGGAAATACAGAAGCCAGGTTCTATTCTTGGCGAACTCCCGGA
AGTCCATGGAAAAAACCGGGACCCACAGTGGGGGTGGGCCTAAAAATGTCCAGCCGCC
AA

Sequence 2018

Table 1

CCGCGGTGGCGGCCGCCGCGGCGAGGTACCAGGCTAGGCAGCTCTGGAGAAAGCAGAAGTG
GATAAATAAGGTGTGGACTACCAAAGACAGTTCCAAAGTCAATTTCACTCTGACACACT
CTCTGTGATCTTCCACAGTCAGCACAAATGCCTGCCCCCTGTGGGTGTTGTATAAATATTT
GTTGAATGAATGAATCAATCATTCAACAGACCAAGGCCAAATCAGAACCCCAACCCTAA
GGTCTTTATACTCTCACTGTCCATCCATCGATCTTCTGTGAGAAATCAGAATATACCTT
TGCAATACCCTTTGCTAGCCTTTGAGTTATCTTTGAATAGAGGCTCTGAGCCTTGAAAA
TATTGCCTGGGAAAAATTAACACCCATT

Sequence 2019

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATGCATACTCAATGTTTAGTTCC
CACTTATAAGTGAGAACATGTGGTATTAGTTTTATTCTTTTTTATACTCAGTCCAGATT
TGTGGCTCACAGGCTGGGTAGATAAAGACTTTTGTGTCCAAATTTCAACCAGTAGCTGC
TATACACACATATCTGGGCCTGCCGATTTTCCCATTTGCTTGTGAAGAATCGACTTTTA
TGAAAGAATCAAGATCTGTTTATTTTCTAAACAACAGTAATGACGGAATCATAAGTAG
AAGTGGGTAACCATGGGTCCCTGAATCCAGCTTCTAGGCACACACTTTCTCTGTTTCTC
CACAGTTAAAGNTTTGTGGGATAAGGGG

Sequence 2020

NTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGGTAGTCCCAGCTACTC
AGGGGGCTGAGGTGGGAGGATTGCTTGAGTCTGGCAGGTCTAGCTGCAGTGAGCCAGA
TGGCACCACCTTCACTCCACCCTGNGTAACANGAGTGAGACCCTGTCTCAAAAAAAGAAA
AAACATACACACAGACATATATGCATACATACAAGGAGCAGCCACTACCCTTAGGGCTA
AGACAGTGTGTCCAAGAATGAGTCCCCATTTCCCTACCACCACCCAGGGCTTGATNAT
TCATACCCTGGTTAGNAAAGGGGCTCAGTTGTGGGCTCACTGGAATGGCCAGAGNTAA
TTGCNTGNATGTGCCTTCTCTGGGGGAAAGCGTTG

Sequence 2021

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAAAAATTTCAATTAACCCAAA
AAAGGCAGGAATGGAGGAACAAAGGAACAAAAAATGACAAATAAAAAACAAATGACAAG
ATAAGACACTTAGAAAACAAGTAGCAAGATGGGGGATCTACAGCAACCTCATCAATCATT
ACTGGAATTGCAATGGAGAACTCCATGTGCAAAGCAGGGATTGTCACCAAGACCCAAC
TCCATNTACAGACACCCACGTAAGATACAAAGACAGGTTGGGTGTCTAAAGGATAGAAAA
AGATCCACAGTGGTCCAGGAGTGGTCCCAGCATTGTGGTAGGCACAAGAGTGAGGATCAC
TTGAGTCTTAGAGTTTTGACCTGTAATCCA

Sequence 2022

CACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGCCNNGTNCTTCTN
TTTTNCATGCTTGATTTGTGAGGCTTATTAGAAAACAATGGCATTGACGTTTCATTTCT
GACTCCTTGATTTCCATTGTTTCAGGAAGTTTTATCTGCTGAAGGCACTAATCCACA
ATGAGCAAATTATCCTGCCCTGNAGGGTAAGCTATAATATCGGCCCCATGCTTCAGGAAG
AGAAAATCATGTGTTGAGGGGTGACTTTGAGTCAGCTCAGCATTCTAAATCAAACCGCAA
ACAGTANCAATCATTATTGGCATAGAACACCTTAAGCAAAATTGGGTCATTTTACNTAAN
GTTTTCTGGCTTTCGTGGGAGAATTAATTCTGCCC

Sequence 2023

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTGGAGACGAGGTCTTGCTATGTTGTTGAGGCTAGACTTGGACTCCAGCC
TCAAGCAGTCCTACTGCTTCAGCCTTCCAAGTAGCTGGAACCACAGGCACACACCACTAT
AACCAGTTTATTTTACATTGNTCTTGTAATTCTGGTATCAGTGATTCTTATAACAATATG
CTCTCAATTTATTTAAGCATGTTGAGACCTTAATGATAACTATTAGAAACCATACTAA
ACATTTTGATCTTGAAATCTTCCATCGTTTTCCATCCTCTGCTTATGCCTCAGTTTATTT
CCATTGCGATG

Sequence 2024

CCGCGGTGGCGGCCGAGGTACCCTGCTGAAAGATTATTTCTAACAGGCTTGAGAGAAAC

Table 1

GTCGGTTCATGTAAATTAGAAATTATGGGGCCACTTTGCCATTCTTCACACCTGCAATGA
ACAGGTGTTTATCTGCAGTTCTGACTTATCTCTTGAATCCATTTGCATGTTATAGTGGG
ATGCAGCTGATGCCCTGTCCAGATCTTCTTCAGGCCACTACATCTATATATGCATTCATA
TTCCAGTGGCTGTGAGTGTGGCTGTTGGTTGACAGAGGAGCTGCATCCTCCTGGGAGGG
AAACTGGAATCAGCCTGGATGAAAAGCCACCCTGGTCCTGGGAGGTGAAAGNCATCTTC
CAATGACAGC

Sequence 2025

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGACCTGACGC
TGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCC
AGGAATATTTATAAACATCCTGCAGGAAAATGTGAAGTAGAAGAGACAGGGATATCCCA
GAAGGTTATGCAAAACATCAAGAGAAGATGAGAGGAGTCTATATGTCAGAATACACATTT
CCCACCTTGCCCAACAGTAGAAAAACATAAANAANAAAAAAAAAAAAAAAAAAGTACCT
GCCNGGGCGGCCGCTCGA

Sequence 2026

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGACGCGGGAGTTTTTCAGAAT
CAGGCCTGCTTTGTCCCTAAATGCTTTCTTATTTCCCCAGAGCCCTTATTGGATTTAAGC
CCCATATCATATCTCACATACCTGAGACAGACATACCACAGTGAACCTGCGATGTCCTTG
TAAGTTCTTTCCGTGCCTAGAAGTTGCAGAAGACCAAGGAACCTTGAAGTGACTTACT
CTTTTGCTCATAAAGTTGCTTTAAACAGCCTTTATTTTAATTATTAACAAGGTATGTC
ACACATTTTAAATTTAAGGTTAATTTAGTCATTAATTCTGTCAAACAAGTGTTCTTTG
GAAGCTAGTTGTCTCAATGTCTTTTACTTGGAGTTACTTGAAGGTTTGCTTAA

Sequence 2027

GAGCTCCCCGCGGTGGCCGGCCGCGCCGGGCAGGTACAGATGTAAGTGGGAGATACCTGAA
TGTGCAGTCAGTGCCAAGTGGAGGCCCTAGGTAGGTTTATTGGTTATTGGGAAAAGGAGT
GGCACCAGAAAATTGGAGGACTAGAGGACAGTTGGGTGAGAGCAGTTAGTTTCTTTGAT
TCTGTGCTAACTTTTTGGATATTTGCTGGAAAATGCAATTTATAGAGGATATTTGCTCT
TGGCTATGGAATGCATTTGCTGTTTCTTCTTTTATACGTAAGATACATCTGTGAGACC
CTCTACAGGAGATGAATTCCTGGGTGAAAAGAGTCATGTGAATATTGTGGAGTAATTATT
CTGAGCCAGGGGAGCAGGCTAATTAGCCTTCTGGGGAATG

Sequence 2028

AGGTACAGAGAAAATAAACTGACATATTTGAGTAGCTTTAAAAAAAAAACTTTTTTTTA
AAAAAGGCTGCATGATGAATCAGTTATGTGGCTTTGGACCAGTAAGGAGTCAATTTCAA
CCCAGACTGTTCTGACTTGGAAAGGCCATTGTGATTCCATGTCTAACTCCAGAATATTGTT
TTCACAATACCATAACATCTTCTAACTGAACAAAATACTTGCACGAAATAGTTGATTCT
CTTCTTCCAATTTCTTTTCATTCATGAAAGGGGAAAGAAGACACATTGAATTAAGCATCC
AACAAATATAAATACAGCATTAAATTAATGCTATCTCAGCAAATATTTAAAGGGAT
AAACCAAAAG

Sequence 2029

CCNCNGCGGTGGCGGGCGCNGCNCNGGGGATCTCACTCAATCTTACTCCCTTGTAAGACA
GGCGATATCTTCACCATGCGCACAATGAAATCAATACTCANAGAAGGCAGATNATTCTCC
ACGAANCCNGANAATAAATGAACAACCTTGGGTGAAATGTCCACCAGACGGTGTGA
TATTTAGTAGCCAGAAAGCTGCCAAGGGGTTGAATGACACTATCTGAAGATATGAACCA
GTTTGCTCTCCATAGGGAGGATTTTCATCAACAGGAAACAGATGCCTGGAAGGCATTGGAT
TTGCTAAGTGCTATGCCATATGATTCTGCTGTTTGCGTTTGATTAGAAATGCTGAGCTG
ACTCAAAGTC

Sequence 2030

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGCCGGGCAGGTACCGTTCCT
CCAGTGCCCAGAGATGCTCTCCGCACCAAGCCACAGATGTGGAGGAGGCAGATGTGATAC
TCTAACATGTCTGAAGCTCTGTCACTTGGGTGCTGAATCCTTTTCTATACTTTCTCAAT

Table 1

ACTGGTCAGGATTTTACGGTGTGTCTAGGAGAGAGCAACCATGATGGGCATGCAATGCT
CAAGTTCACAGAAAAACATGAATAGCAAGACTCAAATCTGGCTGCCAGATTTCTGCAAGG
TATTTTTCTCTCCAAACGAGGTAATGTGTTTCTTATAACAGTCTTTATAATAAGGAGATG
TGTGTGGAAAAAATCAAGTGTTAAACGGAGTCATGCAAATTAGCCATCTGGATAAAAC

Sequence 2031

CCGCGGTGGCGGCCGAGGTACGCGGGGGCCCTCAACTTCTGAGAGCTTAAGGTATTTGTT
CATGTTAGGCAGGTAATGTCTATAAACCAAAAGCTGCCACATACTATCTCTCTGCTCAAC
ACTTTACTGGATACTGGAGGATTTAAGGGAAGGAAAAAAGTGACCTTTTTGCCTTTTTA
AGAGCTTGTAAATCGGTAAAGGAGATAAACTCACACAAAGGTCAGGGTATATTTGTGCT
AAGCATATGACGTAGACATTTAAGTGCTGCCGTAATGCAGAAGAGGAAGAAGTGGTGTA
TCTAGATTAACATAGGTTTTGTTTTGTTTTGTTTTGTTTTTCTTTTTCTTTTTCTTT
TTCTTTTTCTTTATCTAGA

Sequence 2032

CCGGGCAGGTACCCTTCACTCTTTAGGAGAAGGTTTGAAAAAACTGTGTTTCCTGTTG
AAGGCCAGTGATACCTGGCAGCTTACAGTTAGAAAACCTATAACTTTATTATTTTCATT
TGCACTTAAACTGCTATGAGTTTTTAATGCAAAAAATAGTGATTGAGAAAGAAAAAG
TGAACATATTTATATTCTTCCCCCTCAGAGAGAAACACTGTTAACATTTTGTGATTTTCTG
GTCCAGGTTCTTTTCTGTGTGTGTAAGCACACATATGTGTTTATATTGTATAAAATAAGA
GATTCATGCTGGACATACATTGTTTGAACCTCCTTCTCTTCTCTTCTTCTCTGAG
CTAGGGTCTCGCTCTGT

Sequence 2033

CCGCGGTGGCGGCCGAGGTACGCGGGAAGGTTAAGCATTGTGTTTATTAATAGCACAGAT
TTCCACCCCCATTTGGTTTATCTAGTTTCCATTTGTAGTAACTAATAGAAAAAACTCTAA
AATGCATCGGGAGGGAAACACATTTAAAGCTCTGGAGGCATAAAAACCTGCATATAAAT
CAGGCTGCACCGATTGATAAGTGTGTTACTTTCTCAATTTACTTATTCTTTCTTAACCTT
AGTTTTCTCATCAGCAAACCTATCTTAATTACATGACTTTGTAATCCATAAAGCTTGCTTC
AAGCTCTTAGCATGCACACAGCACATCTGCAAAAGTAAGCATTTGCCACTTTCGGTTCTC
AGGATAACATATTCACCCTTCCCTACCTACTAGCAAG

Sequence 2034

CGAATACGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCAAT
GAAGAGTGGCTACTTTTATTAGATCATAAACAGTTTCCATGTTACTAACCAGACTTTACG
ACTATTAAGATAGCATCTTAACCTACGACTGTATAAATATTTATGATCAATAAATCTTA
ATTGGTAGACTCTGAGAATAAAGATGGTGTGTTTTCCAACCCCTCAATATTTGCATACGTA
AAAGTATTTAGCTACTATTTTAAAGCACCTAACCGGTATCTGATGTTAAGTGCATGCAAT
CATGAAACATCTTTATGAAACACCTAACAGGATATGGCATTACATGAAGCTTTTATAAAA
GCAATTAAACCAAAATAGCCTTTACCTCCTGGCAACTTAACTCCAGCCAAATATTGATG
CAGACTA

Sequence 2035

GCTTTGCTCCAGGCCTCAGGAGTGTAAGTTTAAGGGCGCGAACCTGGGTGGGACGGGGCA
GTTTTTCCAGCGGGCCATACGGGAAAATTTTGGTTTCGAGGAAGACAACCACCCTTTTAA
AGGAGAAAACTGCATCTTGCCCTGCGTTATTCCTACGCGGTGCCAGGTGGGGTGTGTGT
GGACCACTCAATGACCGCCCAAGCTCTCCGAGTAGAAAACCCAAACATGGTTTTGTGGGG
TGTGTGCCCTTTGACCCCGGACTTAAGCAAAAAGCGTGGTCTTGGGCGTAGCTACGAGGTG
GTTGGTGGGCTCCAGGGCCTGCGTGCCCTCGACGTGAGCGATGATTGG

Sequence 2036

AGAAGCATTCAAGTCAGGTAACGGGACAAACAAGAAAGAATGTAGGCAGGTAATTCTGGA
GACTCTGAGAAGAACAGTTGAGTGAACCTCACTTCAGATGCATGTAGATTATTGCACTCC
ANAATGTAGACTGTGGGCACTCCAGAGACTACCAGAATTGGGGGAACCACAGTGACTCAT
TAGGTTTCTCTGTTACAATCAGGCATGAGAAATATATATATTTTGTGATGTTAGCTATT

Table 1

GAAATGAGATATATTGGAAGCTGAGAACATTGGCTTTATGTTTAAGGAAGTGTGTTGTTT
TGGTAAATTTGCCATTCCACAAAAATTT

Sequence 2037

TCACTNCTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGGCCAGGAAGCCGCCAT
CGCGGATATTCAAATGGACCAGGGAGCCGCGAAGTATGGTTCGTGCCAGCGCAGCACGA
ACGCCAGGCGCGCCGCCAGCAGGCCGCGGATCAGCAGGTCCGAAACGAGGGGGCCGCGT
CGGGCAGCTGGCGGTAGCGCCGAGCCACCAGCCACGCCGATAGGCGACGCACAGGAAAA
GGAACAGCAGTACCAGGCCCGTGGGCAAGCCAGGGGGCCGATTTGCAGGGACAGCATGG
GCGCTCTCTATCACGTCGAATGGACGGCCATTGTGGCCCATGCG

Sequence 2038

CCGCGGTGGCGGCCGAGGTACAACCTTGACAGTTTATAAAATGCTAACCTATATCAACAT
TTTTCCCCACCAAAGTGTTCCTCAAGGGCAAAGGTAAGTGAATACATGTTCCATGCTTGT
GTCAGGGGCACACAGCAAGGGAAGGCAGAATGGGCATGACCTAGATTAGATCCAGAAGC
CTTCAAATTCCTTATAAGACTTGGGACTGCATCTTAAATAATATTGTTTTTTTTTATT
TTTGATAATAAAAGAATGGAACCAAATCCTGGTTGTCTGATTCTTTGCCAGTGCTCTTT
CTTATGTCTAACACTGCCTCGTCTTATGAATAACTCTGACATTACAGAGAAAGACTATTG
TTTGTTCAGTTCAACACT

Sequence 2039

CGACTCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTTTTTTTTAAGCATATCCTCACTTATCTGATGTAAATGACCAAATACCTA
ATTCATGCAAGGCTTAAACCTAGGNGACGGGTTGGCTTAAACCTAGGTGACGGGTGA
TAGGNGCAGCAAACACCATGACACATGAATGCTTATGTAACAAATCTGCACGTTCAACA
CATGTNTTTAANAACCTAAAGTAAATAATTTTTTTTAAATGCAAAGAAACCATAGAT
TAAAGAGTCAACAAATAAAAGAAAACAAAAATNTTTGATTAACCCAAAAGACAGCAG
GAAAGAAGGAACAGAGATTAATAAATNTGGGATAAATNCAAACTAATAGAAAATTGATN
TAATTTTTT

Sequence 2040

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCNTNGAGACTGNCNTGGN
AGACTGGNNAGGTCACGTNTCTNAGACTTCTGGNGAGACCATNCANGGCTTTTGCTCTT
GACANAGATNGACCACTGGAACACTGACNAANGAGAGAATTCTACTGGTCACANACAAGA
CTCTCTTGATCTGCAAATACCACTTCATCATGCTGAGTTGTGTGCAGCTGCTGCGGATTC
CTCTGACGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTCCCTGGGATGTCCCTGG
ACAAGAGACAAGGAGAAGGCCCTTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCTCTTC
TGTCCTCGCTGGAACCCATGGTCCACTTGAAGTTCCTTATGCTACTTTCACTGAGCATCCT
ATGAAA

Sequence 2041

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACGACTTCATCATGCTGAGT
TGTGTGCAGCTGCTGCGGATTCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTC
ACCTTCCCTGGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCCCTTAGGATCTACTGGGG
GGAGTCCGGAGGAGCAGTCTCTTCTGTCCCGCTGGAACCCATGGTCCCTGAAGTTCCTTA
TGCT

Sequence 2042

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTAGCTTGACAGGGGTGCTATG
TGAAGATGGCGGAATTCCTCAACGTGCTTCTGCAAAATTTATGTATTATCCCCCTCTGC
TCTCAGTAGGGTGTACACCTGCGGATCCTTTGCTTTCCCGCTGGATACTAACAGCCT
TTTTCATAATTGCTAGCACCTATGGAATTGAGTGTGAACTGAACAAACAATAGTCTTTC
TCTGTAATGTCAGAGTTATTCATAAGACGAGGCAGTGTAGACATAAGAAAGAGCACTGG

Table 1

GCAAAGAATCAGACAACCAGGATTTGGTTCCATTCTTTTATTATCAAAGAATAAAAAAA
ACAATATTATTTTAAGATGCAGTCCCAAGTCTTATAAGGAATTTGAAGGCTTCTGGGGAT
CT

Sequence 2043

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGG
GCACAATGAAATCAATACTCAGAGAAGGCAGATAATTCTCCACGAAGCCAGAAAATAAT
AAATGAACAGTATGGCTCCACATAAGGTAGAGCGTGTCTGGTGCCCTGCCGTTTGAAAT
GACCCAAAGGCAGGAGTGGAAGATGGAGTTTCAGCAGGAGAGACTGAGGATCTCAGAGGA
TTTGCTCTGGGATGCAGAGACGCTTGCCATTTTGCTAAGTGCTATGCCATATGATTCTG
CTGTTTGCGTTTGATTTAGAATGCTGAGCTGACTCAAAGTCAAACATTTTGCTAAGTGTC
TATGCCATATGATTCTGCTGTTTGCGTTTGATTTAGAATGCTGAGCTGACTCAAAGTCAA
ACTGTAAGTA

Sequence 2044

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTT
TTTTTTTTTTTTTTTTTGGGACAGCTTTCATTCTGTCACCCAGGCTGGAGTGCAGTGG
CACAATCTCAGCTCACTGCAGCCTCCACCTGTTGGGCTAAATCCATCTTCCCACTTCAGC
CTCCTGAGTAGCTGGGACCACAGGCACNCATCACCACTCCCGGCTAATTTGTTTTTCAT
AGCACATTACATTACCGATTTCCAGTTTATAAGTAACCAAGATGCTCAAACAAGCAAAT
ATTTTCTTGAGTAGACTTACTACAAAAAGAGAAAGAACAGAGAAATTAGTTCTGAAA
GTGCATTTTNTAAAGCCCATTTCAGTATTTGATAGCTCANATCATATANGAAGTTTTAA
TCAAAATGCTAAAG

Sequence 2045

TCACACTTtagggCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTCCTCCCTATG
CATCTGCTGTGGGAAGTGTGGGTAACACAGATGATGCCACAGGGCATGTATTCAGGCA
CCACAGGCAGCAGTGAATGAATGAAGTGAATGGTATTTATCCATTTCTGGAAAGGTCC
AGGGTTTGGCTCTGCAGGGCCAAGAGAACAGCTTTAGCTGTGCCTTAACCCAGTCCTGGA
GAAGCCAGCAGGCCGTAATCACGGGGAGGAAACCCATCTTTAAGGGCTCCTCGCTCAGG
TGGTGACAAGGTGAGGTGGTCACTATGCTGTCTTTATCAGTATCTGTCCTAAATACTGT
GCTCTGACATTTGATGCTAATATTCCATATTACAGGGCTTCTGTGGTGTTTAGGCCTCT
AATTTTCTCTTC

Sequence 2046

CGACTACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGTACCGGCCGCCGCTGGCG
CTCAGGACCGCACCCGCGTTTACGCGTGACGTGCGCGCCGATGCCGCGATAACCGAGGTCG
AAGCCGCAGCAGTTGGCGGCCAGGTTGCGCAGGTCCTCCACCGTGCCGGCGCCATTGCC
TGATTGATCAGTTTGATGGTGGCGCCGGTGATGCTGTTGACGCTGATGGAGCCCGGCCATA
TGTTGGTCTTGTGCTGCCGTCGCCCATCAGCAGCGACAGTGTGCCGGTGCCGGCGTCG
ATCTTCGCCGCCACGCCCTGCTTGTGCGACGCCCATGCTGAAGGGTGGCGGATGCCCGCG
TCGCGGTAGGCCGTCNTTGAACNCCCGTTTGCCAAANCTTGTCGTTTGGCGGGT

Sequence 2047

[illegible]

Sequence 2048

CCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAGACCTGACGCTGGGAGGAGATGCTG
CCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACATTATTATAA

Table 1

ACATCCTGCAGGAAATGCAGTGAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCA
AAACATCAAGAGAAGATGAGAGGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTG
GTGTTCTTGCCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCC
CACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGGAA
GTTTAATGGGAA

Sequence 2049

CCGCGGTGGCGGCCGAGGTACTTACAGTTTGACTTTGAGTCAGCTCAGCATTCTAAATCA
AACGCAAACAGCAGAATCATATGGCATAGACACTTAACAAATCCAATGCCTTCCAGGCAT
CTGTTTCTGTGATGAAATCCTCCCTATGGAGAGCAAACCTGGTTCATATCTTCAGATAG
TGTCAATCAACCCCTTGGCAGCTTCTGGGCTACTAAATATCACACCGTCTGGNNGGACA
TTTACCCCAAGTTGTTCAATTTATTAGTTTCTGGCTTCGTGGAGAATTATCTGCCTTCTC
TGAGTATTGATTCATTGTGCCCCCGCGTACCTGCCCCGGCCGGCCCGCTCGAAATTGT
TATC

Sequence 2050

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACAATAAATACTTTT
AATAATTTTGTGCTAGCTTTACATATTTTTCGATAAAAAATAGCTTTTCCCAAAAGG
AATAAAAACTAAAAACAAAAAATTCAAACATCCAAAAGTTAACATCCAAAAGTTGGTTT
TTCTTCTCAGAAATAGCAATTTGTTCTGCTTCTCATCAGTCCCACTTAGGCTCTCTAG
GACTTAAGTGAAGCAACTCCTAAGATCCAAGTTCCCTTAAATCCTACAGGCAGTGGTCCC
ACCAACAAAGACTTCTCTACTCTTCTTTGCCTCCAGATGCTCAGACTTGGGCTTCTGGT
ATTCTGAAAGGCATCCTTGTTATTTTCTACCAGAGATTGTTGGATTGCCC

Sequence 2051

AGGTGGCACGGTGTATGAAGGCCTGTGTTGAAGACTTAGGTCAGACCTTTTGCCCGCCT
TTCCCTATGCAGCTCTATGCAACTGTCTGTGCAAGGTCCTGTAATTTGCGTAGGACGCC
TTGACACAGTCTCTGCTTATGGACGCTTTACAAAATATCTTGCAAAGAAATAAGTACCT
GCCCC

Sequence 2052

ATATATTCCACCCTCATGGCAAATATGAAAGATTTCCATTGGATGAGACACTGAACTCAG
TAACCACAACAATGNGGGGCATAATGCAATGAACTAAAAACATATTCTTAGGAAAGAAA
AATGAAAGNGAGGAAGTAAGAAAATTTTTTT

Sequence 2053

GTCCGAAAATTTTGGGGTAAGGCTNCTCAACTCCGTCGNGTTGGTGTCGGGTCTCCGTA
AGGGGTTACCTCCATTTTGGTGAAGGTNACTTTANTGTGATCCGTCNATTNCTATCNGGT
GGTCTCTTNACCGGTGTGCNAATTCAANGGGTCTCCTTTNANAAGNCNCTCTTGCAATAT
AGGNNAACCAAAATCCAGTCTANTTCNAGNNGGGGGNCCCTNCTGGCTGGGCAAGGNAA
GNCNCCGTCTCCACCNCCTTGNAAGCCCCCTTCAACCCCNNGGCTTTTAAAGTTTTTNCAA
TTAANANAAAAANCAANGGCNNCCCTTTGGGTGGNTGCTCCTTTTTTGCTTTACCCAAAN
ANGTCCCCAAGGGNTTCCGGTTGGNTTATTTTNTNCTTAACTCCCCATCCAAAGNTTG
TTTCGAATGNGGGAAACCTTNCCCCAAGGNCCGNTTATGGTANCCCAAGGTCCTANAN
AANCCNAACCAAGAAAATAACCATTTTGGNTTATCTANCCCCCTTTTTTTTTTGGNAANA
ANATCCNAAAAAACAATCCCAANGGTTCTGNTTCAAGGGTGGATNTAAAAAGGNCCAAAA
ATAANAACCAANAAAAACCAAAANCCCCAANCCCAANAATTTCCCTTCAAAAAACCCCT
CAAAGNCTCCCCGNCCNGGTAAGGGGGGAAATAACCCCCCTTTTTTTNCCCCCTTTT
CCCCGGCNGGGTNNAACCCCTTTGGGCCCCCCCCGGGGGGGNCCCCGGGGGGCTCCCG
GTTCTNTTCTNTTAAAGGGNAAAANCCTTTATGGNTTTGGGGGGGAAATTTCCCCCCNC
NC

Sequence 2054

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGA
CAATGAAATCAATACTCAGAGAAGGCAGATAATTCTCCACGAAGCCAGAAAACATAATAA

Table 1

TGAACAACTTGGGTGAATTGTCCCACCAGACGGTGTGATATTTAGTAGCCCAGAAAGCTG
CCAAGGGGTTGAATGACACTATCTGAAGATATGAACCAGTTTGCTCTCCATAGGGAGGAT
TTCATCAACAGGAAACAGATGCCTGGAAGGCATTGGATTTGCTAAGTGTCTATGCCATAT
GATTCTGCTGTTTGCGTTTGATTTAGAATGCTGAGCTGACTCAAAGTCAAAGTATAGATGA
AGCATTGCGACTGCCGGCACAAAGATGTTTGGTG

Sequence 2055

TCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTAGCTTGCAGGGGTGCTATGT
GAAGATGGCGGAATTCCCAACGTGCTTCTGCAAAATTTTATGTATTCATCCCCCTCTGCT
CTCAGTAGGGTGTACCACCTGCGGATCCTTTGCTTTCCCGCTGGATACTAACAGCCTT
TTTCATAATTGCTAGCACCTATGGAATTGAGTGTGAAGTGAACAAACAATAGCTTTTCT
CTGTAATGTCAGAGTTATTCATAAGACGAGGCAGTGTAGACATAAGAAAGAGCACTGGG
CAAAGAATCAGACAACCAGGATTTGGTTCCATTCTTTTATTATCAAAGAATAAAAAAAA
CAATATTATTTAAGATGCAGTCCCAAGTCTTATAAGGAATTTGAAGG

Sequence 2056

CCGCGGTGGCGGCCGAGGTACTTCTGTGACATGTATCACCAACTCACACAGTGATTCTTA
CGTTCCTAGGTCACTGCTTGGATTATGCAGCAAGAACAAGGCCATGTAAGGGGTAGGGGT
GGGGCCAGGATTAGACCTGATCATTGAGAAATGGCAGATGGTAAGGGAAGGTCAGTCGCA
GATACCTACACTGGTAGGAAATAAAAGCATATGAGACAGAACANAGTATTACAAATGAA
GTGTAACAGACCACAGGTCCTGGGGTGACCTGCCCGGGC

Sequence 2057

CCGCGGTGGCGGCCGAGGTACTTACATGGGGACCGCCAGGGGCCTCGAGAATCGGTATCC
TGAGTCCTCTTGAAGAGCAGTAGAGTTGTTTCATTAAGTGCAAACACATTGTTCTTAAT
TTGAAAACGTGGGCAGAAACAGAAGCCCCGAGACTAATTTTCCATTGCTAACTCTAGAT
TCT

Sequence 2058

ATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACAATCTCTGGCCC
TACATTTTCTAAACGTTATGCCACCCTGACCAAGGGGCAACTCCTACAAAGCCAGGCAAA
ATAATAAAATCATATTTGCTCTAGTGGAATGGATAACTATGCCTAAAACTGCCCTTTG
AAAAGCAACTAGAGAGATAATTTCTGAAGTGTGTGTCCTACCTGAATGTGTGGCAAAAT
TCTAAACTCCCTGAAGTGTGAAAGTGGTTTNCAGCCACATGCACATCCAGTTGTGGTAA
AGGGTGAAATCTAACTGGCTAAGAGGGCTTCATAGCAACATTAACCAAAAAGTGGTTAT
GTAGACTTTGCCTGCTTCATAATCCCTAGGGCATTCTATGCTATTCTGTACCTTNGGCC
GCTCTAGAACTAGTG

Sequence 2059

TCTCCGGCTTCTATTTTGCCACCCGGAGTCGAAATACTTCGTCTGTCGGCAAGATCGGCA
TGGACCAGGTGGAAGACATGGCCAAGCGCCGCGGCCAGCATCGAGGACGTGGAACGCT
GGCT

Sequence 2060

TCTCCGGCTTCTATTTTGCCACCCGGAGTCGAAATACTTCGTCTGTCGGCAAGATCGGCA
TGGACCAGGTGGAAGACATGGCCAAGCGCCGCGGCCAGCATCGAGGACGTGGAACGCT
GGCTGGCACCGAATCTGTCTAGTGCCATAATAAGCACAAGGCGCGCGGAACCTATCG
CGCGCCGNAGCGCACTAACGCAGTATGCCGGTCGGNATGCTGNATGCCCGNTCCGGCCCCG
TTCCCTGACTGGCTAAGGAGGATATATGGCAAGCAATTTCAAAGTGAACGCTGGCAAGA
TCAAGTGATCCTGTTGCTGGGCCTGTGG

Sequence 2061

CTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGGT
TGTCATACTTTAACTTTTGTCCCTTTCCAGGTGGCCCATGCTTCTAGGCCAGCCTCCCA
ATTCTAGCTTGCTTCATGCTCCTGGTCTTTGCCTACTCAAACAATCTGTCTCCTCCAC
CCTGTCATCTCTGTTTCAAGATAAATACCTCCCTCCCTCTGCTTTTGCCTAAGTTATTTT

Table 1

TTCAACTCACCTAACATCTAACTTGGCTTTGCAGCTCTGTTTCTCCAAAACCTCTCTGC
 CTGTTTCCTCCCAAGCTATCTATGACCAGTGCCAGAAACCAGAAATCTTCTTGGAAGTT
 GCACTCTTTGCTTCTCTTCCCTCTCCTTTATCCTTCCACTTGGGAATCTCTCTCCTTCTA
 CCTGTCTCTATCTGCTGCAATCCTGTTTCATCTTTTCCAGGTACCTnnnnnnnnnnnnnnnn
 nnn
 nnn
 nnn
 GCTTTTGTTCCTTTAANTGAGGGGTTAATTGGCGCCCTTG
 GCGTAAAT

Sequence 2062

CGAGGTACAGCACTGGGCTTACAGCGGCGCTCAACAGATTTTTTCTTTTAAAGAAAATG
 AATCACTGAGGTTTAGAGATGTTAAATACTTGCCCAAGTTCCTGCTTGCCAGATGTG
 CCTTTGGGAATGCATCTTCTTTCTCAAGCCTCCTTACAGGGGTTGTAGTGAAGATTGGAA
 NGGGATAANGCAGGTG

Sequence 2063

GAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGGAGATGCTGCCA
 CCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATATTTATAAACA
 TCCTGCAGGAAAATGTGAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCNAAACAT
 CAAGAGAAGATGAGAGGAGTCTATATGTCAANAATACACATTTCCACCTTGCCCAACAG
 TNGAAAAACATAAGAAGAGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGTCAGC
 AATGTGATGGTGTGGG

Sequence 2064

CGAATTGGAGCTCCACCCGCGGTGGCGGCCCGAGGTACCTCTCCTGGGAAGCTCTTCTTCA
 AACATTGGTGACTCAGGGATTTGGGCTGCTTTCATCTTATAGCTCTGTCATCTCTATCAT
 GGAGCTTTCAAGGCCCTTGTTCGCGCAATATCCTCTCCTGGATGCTTGGGAAACACATCG
 ATGCATCCCGTCAGTCAGCAGCTGTTTACGGAACACCAGCTGCAGGCCAGGCACCGTGCT
 GCAAGGCGTAGATATGTTGCTGAACACGACTCCCTTCCAGATGTTGAGGATTTAACAGGC
 AAGTAAACAGAGGGTCCAGAGAAGGCACTCAGCACTGCCTCATGACATCAGGGAGGATTG
 CTCAAAGGAAGTGATGCCTAAACCCAGCTGGATCGNAGTGTAATGGATAGAGGGGTAAAC
 AAGAGCTGATTTCTAGCGGTCTGAGTCTCGACAGGTTGCCACCGTCAGGAGTATTGAT
 CTTTTCTCCCCGC

Sequence 2065

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTNAGGNNATAT
 GTATACATAGTAAGTGATATATTTTTGGGGAGAAGATCATGCATTTCTAGGACAGGAC
 TAATACATTTAGCTGTGGCTATTATCAAAGAGCACCAAGACCTTAGGTGGGGCAACCAGA
 CTGGCTATGGGGCTTGATGTAAGCCAGACCCATGACCCATAAACTATTTAGGTAGGAAG
 TAAGCAATACTATAACTTGGACTCGAGGGGGAGCAAAAGGGCACCCCTCAATGGTGATGG
 CTGCCCACTTGGTCTCAACACTGTAAACTTGGGACTTGTGCCAAGCTCCACCAGGCAG
 GGGGCAGAGGACACTGAGTCTCCTCCAAGTGAAGTCAAGGAGTGGCTCAGGAGCTGACACTG
 GCCTAAGCTTGCAGCAAAGGGCCCCCTACGTACCTCGGC

Sequence 2066

AGGTACGCGGGGGGGACAGGCCATCTCGCTATAGGAAAGGAAAGTGGAACAGCATTTCATC
 CTCAACATTTTACGAAGACAAAATGAAGACTGGAGTAGAAGACTGATCAGTGCAAGGTGT
 AGCATAAAAGTGTAATCCTGGAAGATGTGGTGTGAGAAGGTAGCACAAGTGAAGCAAAGA
 TACAGGAGATAGGGAAGGAAAGCTGGAAGCAGAGGTCACTGGAGGCAGAGGGAGATGGAC
 ACATTCAGGGCTACAAAGCAAGTTCTATGTGATTTGCTCACCTCTTCAATTGTGGGACCC
 CTCAAATGTGTACCTGCCCCG

Sequence 2067

GTACCCGGGACGCTGGGAGGAGATGCTACCACCTAGGTTACTTGTAGGACCCTATACGGC
 AACCTNCTTTGCCAGGAATATTTATAAACATCCTGCAGGAAAATGTGAAGTNGAAGAGA
 CAGGGATATCCCAGAAGGTTATGCAAAACATCAAGAGAAGATGAGAGGAGTCTATATGTC

Table 1

AGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAANAAGAGAAAAACATTAA
AAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGGAGGTGGAGCCTTC
ATANGGTAATTAATGC

Sequence 2068

AGGTACTGACTAGACAATTGAGTCTCAAAGACGATAATTTATCCAACATAATTGTGTGAA
TAATGACAAAAAACACCCAGTTTTGGGAAAATTACAAATGCAATTTCTAGCAGACACTG
CTTGTTATCTAGTGTGGTAAATAAACAACCTCCAAAACCTCGTGGCTTGAATAAGCAT
TATTTATCTTATTACAGTTGTTGGGTGATAATTTAGACAGAGCTTAGCTGGGATGGCT
TGCTTTGCTCCATGTTATGCTGACTTGACTCACTCATCTAGTTGCAGTTAACTGGCAGG
GCAGCTGGAGCCTGGCTGGTCCAGATGGCCACACACTTTGTGGCTGGTAGTTGCCTGGC
ACTCATAAGGTGCCCTTCATTTCTCCACCTAGCCTATCCAGCAGACTATCTTGGGCATC
CTGGGCTTCAAGAAGAAAACCGCATGTACCTGCCCG

Sequence 2069

AGGTACGCGGGGGTTTCTGCGTTTGTAGATGGAAGGAAGAACTTGTGTGCTTAGACCTG
ACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTNCTT
TGCCAGGAACATTTATAAACATCCTGCAGGAAAATGTCAGAGATGGGAAGAAACAAGAA
CTTTGACATGCTTGGTGTCTTGCCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCA
GAATACACATTTCCACCTTGCCCAACANTTNAAAAACATAAGAAGAGAAAAACATTAAA
AAATGACANGGAAGTTAATGGGAAGTCAGCAATGTGATGGTGTGGAGGTGGAGCCTTN
ACAAGGTAATTAATGCCCTTGT

Sequence 2070

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGAGTGAATAATTTGTAGGAATGATATT
TTCATGGGATTACTCAATCTCACCCACCATAGTTGCGGGTGACAAGAAAGCTAAGTTGG
CAGATGTTTGTGCTAGAAGCTGTGGGTTACGTCTCCTTTGTACATGTGTTCCAGACATA
CCAGTGCTTGGTATTTAAACATCATGCTCAGGTGTGCAGGGTAGTTTTGAGTTATAAT
AGGTATGCAGGCGCTGTGGGATTACTTGGTTGTTTATGTAAAAATTATTTGCACTCACT
TCTGAAATGAGTGTAGTAGAATCATCTTTAGAGGAGGTTCCAAGGCATTGAATGAGAT
ACCTGCACTGTTTGTGTAATTTAAGCTTAAAAATTGAAACCAGGTTATCANCATTTTCAT
GCCAAGGANAGAGTGGGCATGAATGATTC

Sequence 2071

CCGCGGTGGCGCGAGCGGCCCGCCGGGCAGGTACCTTAAAGTTTGAGTCTCACTTTCTCT
TATATATAAGGCTTCCTGAAAGCATTAAACAGTGATGTATGAAGTGGCCAATACAAAGT
AAGACCTCAATAAATGGTGGGCACCTTCTTTTATATGCCAGCTTGATTCTTATTGGACA
AGGTATGCAACCTCTTTGGGCCCAATTTCTTTCTGAAAGAATCAATCTAGTGCTCAA
GATTCAGAACTTAGTGCTTACACTTTGGGAAGGAGGACTGATGTAAAGAATCAGGATTTT
CTGGACAAGTTGATGAATCTCCTCCTCTCTTTGGTGTCCCTGAATGAGTGATAGATGGA
TAAAAGTCCAGTGTCCACATATGCACAGATGCTAATAAAATGAGGTGGAATGATGGTAAG
GCCTTAAAGTAGAAAGTATGAAACCTCCACTCTTGCTTGGCTTTCTCTCTTTCCCTTGC
TACTCACTCTATCTCCTTCTCTCTCTNCTTTCTNCAATGTCAAGATGTAATCTCTTG
CCTTAAATTTNNNAAATCATCAACACCCTTGTNAAACACCTNCCAACCTTAGTTN

Sequence 2072

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGACTCAATCTTACTCCCTGTAGAACA
GGCGATATCTTACCATGCGCACAATGAAATCAATACTCAGAGAAGGCAGATAATTCTCC
ACGAAGCCAGAAAATAATAATGAACAGATGGCTCCACATAAGGTAGAGCGTGTCTGGT
GCCCTGCCGTTTGGAAATGACCCAAAGGCAGGAGTGGAAGATGAAGTTTCAGCAGGAGAG
ACTGAGGATCTCAGAGGATTTGCTCTGGGATGCAGAGACGCTTGCTATTTGCTAAGTGT
CTATGCCATATGATTCTGCTGTTGCGTTTGATTAGAATGCTGAGCTGACTCAAAGTCA
AACTGTAAGTACCT

Sequence 2073

Table 1

CCGGGCAGGTCAGCAGCTTTGCATGTTGACAAATCCGCTCTCTGCTGCAGATGCCTAGGG
GAAGTTGCAGACTTAAATTTCTTTGTAAATGGGGGAACACAAACAGATCTTATGTCA
CACTGGTTACTCCAGAAAAAAAAAAGAAAAAGGAAGGAAGAAAAAGAAAAAGGA
AGGAAGAAAAAGAAAAAGGAAGGAAGAAAAACAGAAGGAAGCNAAAAAAAAAAAAA
AAAAAAAAAAGGTTCCCT

Sequence 2074

CGAGGTA CTCCGTGAGATATAAGGCTGATGATAAGGATTGGGGTAAAGAGTTGATTCCG
TCACACTTGACTGCCTTGAAATCTGTCTTGGCATCGGGTCCTCTTCCATCGATAGGT
GGTCAGTCTCAGAGGGTTGGTCATCTCCCTCTTGCTTCAGAGACACAGCCTGGAATCCTT
CAAACTCCCAATTGTTGACATTTCTTCAGCCTGACTAGGCTGGTCTCAAGGCTCTTCT
TTCTCTTTCTGCACAAAGGGGGCTAGACCACAGATAGTGGCCAGGAGAGGIGTGACTGGC
TCAGATAAAGCCAGGCAAGACAGTGCCTGTGCTGTGACCCCACTCAGTCTGAATCTCAC
TTCACCAAGTAGGCTGAGAGTTACACTGCCACCCTCAAATAGTCAAAAAAAAAAGTACCT
GCCCCGGCGGGCCGCTCTAGAATA

Sequence 2075

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCGGGCAGGTACGCGG
GGATTATAATGTATGTTGGAATGTCCTCCTTTGAGTAAATTTACTTAAGGGTCTTTGGG
CTGCATAAATTTGTATGTGCATATCCCTATCAACATTTGGGAAGTTCTCAGCCAGTATTT
CTTTAAGTAAGATGTTTATCTTTCTCTCTCTTCTCTCTACTGGAATTCATAAATTA
TATGTTTCATATGCTTGATAGTGTGCCATAGGTCCCTCATACTTTGTTCACTTATTTCAAT
CTTTTTTCTTTGTTTCCCCAAGTGGCTAATTTTAAATAACATGTCTTAAAGTTGACTA
ATTCCTTCTTCTGCTGAATGAACCTTAAAGATTTTAAATAAGTTTTTTGGTAATCAA
AAAGAAAAACATATAGTAGAAATGCTTTTTTAAAGTTTCAGGCATGGTGGCTCATGCCTGTA
ATCCCAGCACTTTGGCCAGCCTAAAGTAGGAAGATCATTTGAGGCCAGGAGTTTGATCCC
AGTCTGAGGAACATGGCAAACCCCATCTCTACTAAAAAACGAAA

Sequence 2076

GCCCNCGAGGTNCCCTNNGGACACCCCTTTTTTACCATGATCCATTTTTTGAATACAAAGA
CACAGTACCCCGCTTTTGGGAAACAACCTGAAAAATAGGGGAATAGATAAGAAAGTTTTT
TGCTTACTTGTTTTTGTTTTTTTTATATTAATACTAAATTTTCATTCACTANTAAAGTT
TTTTTAAAGAATAAATTGCTTGCTGGATGTATTGAGGTAATAAAAGTTTTCTTTTCCCT
TTATATGAAGCAATATAGGATATTAGCTTTATGAGGCACTTGCCAGTAA

Sequence 2077

CCGCGGTGGCGGCCGAGGTACAAACCAGGGCTGTTACTCCTCAACAAGGAGGAATAACGC
CTCTTAGAAGCATGGCAAGCAGGTGCCATAAACATGTCTACTACAATTTCTCACTGCCT
GGAATAATTGGAAAAGTTTCATAATGCTCTGGCTTTCAGGTTCTTCACTTTTGCAATAA
AGCTGCTAAGTCTGGTTGCAAAGCTTTTATGATGATTAGAAATAATATATGTAATGCC
TGATGCACAAGAGTCACTCAATAAGTGACAGCAGTGTGATTAATCTATGACATANTAAAA
AGTTCTAACTTGAACACGAGAGAAAAAATAACTTCCAGTGCGNAAAGAGATAATTTCA
TGATCTCAGGGACACTAA

Sequence 2078

CGAGGTA CTCAAATCTCTGCCTCAGGAAACATCCAACCTTTCAAAGTTTCTGGTAAGGGT
TGTAAGGAAGCAATTAGTGTCTATTAGAAAGAACTATCGATGTCACTATGCCAAGGGAGA
AAAGGGGTAGCAAAATGAGAAAGAAGGCATGAGGCACAGACATTGAAACTAACCTGTA
TTTAAGCTTAGTGATTTTTCGCTTTGCCTCTACTCCAAGTGGGGAGTTTTCATTGCAGGC
ACTACAAACCCCAAGGTATGACAATGACATAAGAATCAGGGAAGTGGCTGGAAAGGGAAAG
CTATATAGTTAGACTGGCCTGCCTTTGAGTCCTGCCCTGCCATTTGTACCTGCCCG

Sequence 2079

CCGCGGTGGCGGCCCGAGGTA CTGCAGGAACCATGTTGCCAGCACTCTCCTAGCCCCAA
AAAATTACATCTAGGAAGCAGGGGCCATTAACCTACTGGAATCATTGACTATGTCATAGA

Table 1

AGTCCAGTCACCCCGCAGGAACCAGAATCTTCCCATGGATATTTAAACCCAATTAGAAAT
GGCCACCAGGTGGTGCCAACTGCAGCTAAGGTCCAGGTGAATTTGAACCATGCAATCTT
GGATCTTTTGGCTCTCCTGGTGATTTTATAGAGTTTTTTCATCGTTAATCCATTTATG
AATAAATGCTGTCAGTTTGTAACTCTTCTTATTGTCTATAGGTAAACAGAAAACCT
TTAGCATTGGATAAAAGTCTTCTTATTTTTACTGNGACCTCTTCTTTCTTTTGATCT
CTAATATTTAGTCGCATGGGAACACCAACTGTTAACTGAATTTCCATTTTCCAT

Sequence 2080

GGAGCTCCCCGCGGTGGCCGGCCGCGCCGGGCAGGTACGCGGGGGTTTGTAGATGGAAGGA
AGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAG
GACCTATACGGCNCCTCCTTTGCCAGGAACTTTTATAAACATCCTGCAGGAAAATGCA
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AGGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTGGTGTCTTGTCCCAAGCTTTG
AAGAAGTTTACAAAGTCTATATGTGAGAATACACATTTCCACCTTGCCCAACAGTAGAA
AAACATAAGAAGAGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGT
GATGGTGTGGAGGTGGAGCCTTCAGAAGGTAATTNATGCCCTTGTAAGAAGAGGCCAN
AGAGCTTGCGCACCTTTTCTTGCCATGTGANGAGCCANGAAGCCGGCTGGCTGCAACC
TGCA

Sequence 2081

GGAGCTCCCCGCGGTGGCCGGCCGAGGTACACTTGCCAATTGAGATAATATGAAATTGTA
TTCCATTTTAGTTTTAATTACATTTCCATGATTACTGCTGAGGTTTAGCATCTTTTGTAG
TATTACGGAATTTAGTTTACTCCTACGTGCATTACATTTTCATAATTTGCCAGTTTTT
CCTTGGGTGTGTTTTATTTTCTTACTGATTCCAAAGGTATCTGTAAATTATTGAAATGAA
TTATTTTAGTATTGTGCTTTTCAGCTTTTCTTTTCACTTTAATTGTGCATTACATCATAT
AAAAGTTTTCATTTTAATGTAATCTTAGTTGNAAATATTTTAAATTTGGTTTGGTTTTCT
CTGNTATTTTTTA

Sequence 2082

CCGGGCAGGTACAGGAGAGTCCCATAGACTNCTGCCCCCTNCCACAGACAGACTACCCCT
AGAATATTGTAAAAGGATCTATCACTCATTTTCTCACCTCTCTTATAGATGTCTCTCTT
CAACAGTGAGATTNTCCGTAACCTCTGTNNCAGGACTGGGCTTGTGCACTCAAATC
CATGACTCATTGTTTCTCTGCCTTTCCGTGTGTTACAGGTGGGCTGATCCCCCTGCAGCC
AGTTTCCCATAGCAACTGACTTCCAACCTGGGAATGTCTCGGGGGATAATGGGGGTGGG

Sequence 2083

AGGTACTTGCAAACCAAATTGGCAGCATATTTAAAGAATTACACACCAGGGAAAATAACC
CTAGACCTTGCACTTAGTGCTCTGCTTATCTGTGACTTCAGACAAAGATGGAGAGAGCT
GACCATCAGTATAATTTAGCTGAATGAAATAATGAGATATTTAGGAAGAAGAACATTGA
ATGTCAGAAAGTTAAATGTGAGATCCAAGAAGTAACAGTGAACAGACAAGTTTGTGGGTAT
GTGGATATGTCTTAAATAAGTCAGGTTGTGTCAAATTATGATGGATGATGACTGCGA
GGCAGGAAGGAAGATGAAAAGGAGGAGGCATTGAACACTAATGGTCACAGGGAGCACCCG
GGAGCGTGGTGACCCAGGGTGAGCTGCTTCTCTGTGAGGGTGGAGGGAA

Sequence 2084

CGAGGTACTCTGACATCATCTGACATGGCAGCTCCCCAGCCATGGTGGTGGTGATAGAAA
TATAAATGGTGACAGCAGCAGCAGTGATAGTACGGTGGAGGGAGATTGCTTTTCTGC
AGCCAGGCTTCTGGATCTCCCAACCTGGGTGGGACCCAGCTGAAGATCTGCAGAGAAACC
AGCCATTTCTGAGAGCAAGGCAATCAGTGGGCATTTACTGGAGGGTGTCTAGGTTCTTAA
CATCTCACTGTTATTTGGGCTCATGGGATCATAAGAATGACAAAATAAAGAGAAGTCCTN
ATTTNTTACCACAANAAGCTTGACACAATTTCCAGTAAANTCTTGATTGAAAGGAGAG
ACATGTTTTCATGTGTTTTATATTTCCCTTAACAACCCAATA

Sequence 2085

CCGCGGTGGCGGCCCGAGGTACTCCACTTGTAACCTGCTTCTCCCCTGATGCCACCACTGA

Table 1

CCTCTGTAGCCATGGTTCTGCAAGTTCTCTAATTTTCTGAGCCTCTGAGTCACTGACGAA
 GTCATGGTAGAGAGCAATGTAGGGCTCCAGGTGGATGACCTCCTCCGGATGGGCTGGAG
 CAGCAGGTAGGCGTTGGAATTGGTCTCATAGGAACAGTAGAGGCTAGGGATCTGGTAGAG
 AGTGGGCTGGGAACCCAGGGTCTGACATAGCCCCTCGTAGGTGTCTCTGGTCTGCAGGTG
 GGGTATATTGGGCTCTGGATGACGGCCTCAGCTACCACGTGGTTGGGGCTCTCTGCCAA
 GAGCCTTTCATATTTCAAGACATTCTGGCCATCCTCTTATTATCTGGGCTGTAGAGAAG
 AACTCCCGCCGCGTACCTGCCCCG

Sequence 2086

GCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTAAGTTTACAGTTTGACTTTGAGTCAGC
 TCAGCATTCTAAATCAAACGCAAACAGCAGAATCATATGGCATAGACACTTAGCAAATCC
 AATGCCCTCCAGGCATCTGTTTCTGTTGATGAAATCCTCCCTATGGAGAGCAAATCGGT
 TCATATCTTCAGATAGTGCATTCAACCCCTTGGCAGCTTTCTGGGCTACTAAATATCAC
 ACCGTCTGGTGGGACATTTACCCCAAGTTGTTCAATTTATTAGTTTTCTGGCTTCGTGGAG
 AATTATCTGCCTTCTCTGAGTATTGATTTTATTGTGCGCATGGTGAAGATATCGCCTGTT
 CTACCCCGCGTACCTGCCCCGGGCGGCGCTCTAGAACTA

Sequence 2087

GCTTTTAGAGGGATGGGGCACGGCATCTCAATACCATTTCCTATTTTGGAGATGGTTGCT
 TCATTCAAAAGAAGCTACATTCCACAAGCAGGTGTCTTCTTCTACTTTATCAACTCATC
 CATTCTTTTCCCAAAATACCTACTGAACACTCTCTATGCCTGTCGTATTGCAGACATGC
 GGAATATATCGACAAAATGACTGAACCTTCTGCCCCTGGGGTGGCTTCTTCTTTATCTG
 GCTCAAACTCTGTTCTGCTGCAGGTGCTAGCTGCAGGTGTTGCTCATTAAAAAGGAAAA
 TCTATTCTACAATTAGAAAAATACCTTGGGAGAACATTGCAAAACAGTATTGAATNAGT
 NAAAGCTGGTGCACCCCATAGGAGAAGNTGTACCTGCCCCGGCGGACGCNCTAGACTA
 NTGGANCCCCGGGCTNNAGNGAATTCCATATCAAANTAANNGAACNCGTCTACCTANGN
 GGGGGGGCCC

Sequence 2088

CCGGGCAGGTACGCGGGGTCTTACCTCAGAGCTGAGCTGGGCATGAGTAGATGCTCAGTA
 AGTGGTGCACAGGGTTGGTCCCTATGGTGGAGGCCCTAACACCGCCCAACCCCCCTCC
 ATGTTCTCACAGCTCCACGCACTGAGCACGGGCATGAAGGCCATGATGTCAGAATTCTGC
 ACCCAGGGAGCTGAGATGTGCCGACGGCCTGTGGCGGACATGGCTACTCAAAGCTGAGT
 GGCTGCCATCACTGGTCACCAAATGTGCGCCTTCTGTACCT

Sequence 2089

GATCAGCTTGGATATACACTTAGGTCATAATACTAAATATGAATATTCGTTTTTNNCCAT
 AACCATAGGGTGTATCATATGCCTATGANTCTGATCCTCTACTTTATCCATCTGAATGC
 TTCTCGATCCACTCATGCAAGATGTGTAAAGCTCATCATGGAAATAATCTATACTAAGCT
 TTCAATATTGACATATTTATATAAAAAATTTATNGTAATANGATTGAATAAACANTAAGTA
 ACTTTTTTATATTGATAAGNCACCACAATNTTATCTTAAAAAGCAATCTTATTATTCA
 AGTATAAATTCAGTATTTTTTTCAGATCCTACAATTCGCCTGGTNGGTGTATCATTAGNC
 TATAATAAATNNNGTGAATGGCAATTTTACCAAAACAACACACTTGCTTAAACATAAA
 GCCAATGTTCTCAGTTTCCAATATATCTCATTTCAATAGCTAACATCAACAAATATATA
 TAT

Sequence 2090

AGGTACAATATAGGCAGACAGTTTGCCTTCAGAAATTCAGAAATGCAGCTTTTGAGGGAG
 GTCAACATCATTGGTCTCAGCTACCATTTTCTGCAGGATGTTTATAAATAGTTCTTGGC
 AAAGGAGGTTGCCGTATAGGGTCTACAAGTAACCTAGGTGGCAGCATCTCCTCCAGCG
 TCAGGTCTAAGCACACAAGTTCTTCTTCCATCTACCCCCGCGTACCTGCCCCG

Sequence 2091

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACGCGGGAGGAAGGATTTAGGACA
 GCATCCTAATCAAAGGGCTGGAAGCACTTTATAAAGAGAGAGACAAGATCGCATGTC

Table 1

AAACTAGAAGGAAGGAGGTGAGAGGAGATAGGGCTCCAGAGTGGAGCAAGCCCCCTTCTGT
CCCCGTGAACCTTCCTGCCGGTGCATGGGTACCTCTCATTAAATTTAATAGTACCTGCCCG

Sequence 2092

AGGTACTGTATATAAATACTGAAACAAAACAATGGAAAAAGCAAATAGGAAATAGAGTGA
GAATCAGGGGAACTGAGGGGAAGCACCAAGTTTATCTTCTTTAGATAGTTCTTATTTTGG
AGACAGGATATTTATTTCTTGCGAGCTCTAAGGACTGTGCATTTAGCAAGGACCGTTTCT
TTTTCATCTTCTCTACTAATGTCTTAAGGGAGGGAAAGATAAATCTGAGTGTCTCAGGA
TACATATGGAGCTGAGGGCCACAGTTGCTAATTAAGTCTCTTCAAAGACCCATTTGGAT
GCCTCAGCATACGTGATAAAAAAGATTACCCCAATGATGTCTGTTTCCAGGCATCA
AAAGAACCCCAAATTACCTTGTGTTAACAAGAGTGGTTGGAGAAAGCTAAGATACCACTA
CAATCTCCCTTACCCTCTGCATAGTGTGGCTAAGTGGTATGGTCCCTGATTTTCTGATA
ATTACTACTTTTAAGGAGATGGTATTTTGTGTCAGTGTCACTGAGGAAACGGGATTCCAA
TCATAACAGCCCCGAACAATTTAAGTGTGCAACCCGACCCAAATANAATCACTTGAA
CCTTGNCNGAAATTGGAATNTACTTTCTTGAACCTCAAGGGGAGAGAAAAAGTAATTTGG
GAACAAACAGTTCCTTGCCCCGGC

Sequence 2093

TTTCAAAACCCGCTTATTTACGCGAGGACTCCTCTGCGAAGACAGGAAGGATGGGGTCC
CACACCTGAGCCAGGCGCGGTCCCCACTGGGTGCTCCGCAGCCCGGAGTGGCTCCGGACG
ACAGCCCGCTCAGCGGACCTTTGCCAGGCTCGGTGGACCTTCTCCGCTGTTCTCCTCAG
GGCGCAGTCAGGTTTCTTCGACACACACCAACCGAAGTTGAAGCGCGTGTCCCGCGTACC
TCGGCCGNTCTAGAACTAN

Sequence 2094

GGAGCTCCCCGCGGTGGCGGCCGAGGTACATGAACTAATAATGCATTTCTAAAGGTGAAA
AANGAATAGGTATTTTCTGTTTAAATATTCAATTTTATAGAGAGTAGTACGTTAATTTT
TTAAACCCGAGAAGCTCAGGATCTTATCATTTTAAAGAAATTATCACCAGTTCTGTGTG
AGTAAATAAAGTATTATAACACTTTGTGTTTTTCATCCATGATACCTTGATTTACTTAC
CTGAGCTTTTTTCTAGGGAAAGAAAAATGCTCAGGTAATAACAGAGCCTTGAAAAATT
GGATTTTCAAACTACCTATTTATGTATAGGCCTTTAGATCATCTGATGTTGAATACTCT
TTAAGTGATCTAAAGGCCTACATATAAAAAGGTATTTTATTAAATTCTGGAATTAACA
TT

Sequence 2095

AGGAGCTCCACCGCGNGGCGGCCCGAGGTACTTNTTTTTTTTTTTTTTTTTTTTGTG
CAATACCAGCTTTCACCCTGTCTCTGCACTGCTTAGCCTTGGCTCTGCTGAGTTGTGCA
ACACATTCTGAGAGATGCCATACAATGCTCCAGGCAAACTTATAGAAAAACAGGAATGAG
TGATTTTATACGGGATGTGTTTCAGCTGTCCAATTCAAAATAAATCACGTCCAGGTGCAT
TCTTTCCTAATTTGTGACCCAACTGCTTGCACTTTATACATTAATGAATATTTTTTAA
AAAGAAATTAGCTCTATCATGAAGACAGTGCTATCTAACCCCTTGTGGTCTTCTCCCTT
AAAAA

Sequence 2096

CGACTACTATAGGGGCGAAATTGGAGCTCACCGCGGTGGCGGCCCGTCACGGTGATGTTG
TTGTGCGCGCCGGGGCACGCTCAGCGAGCGCACGCCGGCGTAGCCGGCATTGACATTCACG
CTGGTGCGCGCACTGGCTTGCCAGTTCCAGCCCACGTTGGCGCCGATCTGGCGCGTGCGG
TCTTCGCTGCCGAACCTCCATGCCGGGCAGCAGGGCGCTGTGATGCCGCTGGCCGTTTGC
GCCGTACGGTCTGA

Sequence 2097

CCGCGGTGGCGGCCCGAGGTACGCGGGTCCCTGAGTTCAGAACATAGGAATTAGATTGAT
AGACATCAACATACCCGCTTTATTGCTGACTCATGACAATAATGGGAAGACATGGCTCA
GATGTGCAGCCACAGTGAGCTTCTGAACATTTCTTCTCAGACTAAGCTCTTACACACAGT

Table 1

TGCAGTTGAAAGAAAGAATTGCTTGACATGGCCACAGGAGCAGGCAGCTTCCTGCAGACA
TGACAGTCAACGCAAACTCATGTCACTGTGGGCAGACACATGTTTGCAAAGAGACTCAGA
GCCAAACAAGCACACTCAATGTGCTTTGCCCAAATTTACCCATTAGGTAAATCTTCCTCC
TCCAAGAAGAAAGTGGAGAGAGCATGAGTCCTCACATGGAACTTGAAGTCAGGGAAATG
AAGGCT

Sequence 2098

CCGCGGTGGCGGCCGAGGTACATCTCTAGCTGATGATTCAAAAAAGAAACCTTTTAATCT
CACTCCACTGATCAGCTATGATACTTAAATGTTTtagctgtgagcaaaataatATGCATT
CTCAAAGAGAGTATCTTCAGACTCCAGTGGCCGAGAATCTAGAGTTAGCAATGGAAAAAT
TAGTCTCGGGCTTCTGTTTCTGCCACANTTTTCAAATTAAGAACAATGTGTTTGCACCT
AATGAAACAA

Sequence 2099

CCGGGCAGGTACATGTCAAAGGAAAAACACGTGAAAGATGAATTCAGCCAAACCCACCAG
TGTTCAACCTCAGTCTAATCAATCTCATACTCCTAGAGGCTTAAGTATCAGCAGGTAAGA
TCGTGATGACCTGTCTCTGAGGCTCCAGACAATAATTTCTAACTGCCAACTGGAAATCCT
TATATGGTTAGGCTGCCAACATCCCAGGGAACAGGACCAAAATAAAAAGCATCACTCATT
ATCCTACTGCAATTTTCTCTTCCCTTTGTCAAATGGGAATGATCTTTACGATCATGATC
CTTTATTGCAACCAGGACAGAAATCATGAAGTCATCTATGGCCCCCTTCCTCTCACTCCGC
CTCCAATTAGTTGTCTATCTGCCCTTCCGTTCTCCTTCCATCTCCATAATGCCAAGC
TAGTCTATCACCTCTCCATTATCTTCACTCAACCTCCAGAATTATCTTCTAAACCC
AGACTGATTCTGATTTTCTCCTCAAGAAACGCTCTCTAACACTAAAGCACTTTGCTTC
TACCTCTATCGAGCCCAANGGTATTCATCCTTGNAATCTCTCTAAATGAGTCCCAGCTG
NCCACCCACGAGACTAGGAGTTTGGTAAGGACAGAATCACTCATTTCATCCTTGNACCT

0

Sequence 2100

CACTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCAGGTACTGTGTGGTTTAAAGA
TAAGCAGCCTGTGCTGTCTTTATTTTTCAGAAATAACATAAAATAACAACAATTACTGAA
CGCAATGTGCAATCTCTATCTTCTGTGTTTGGGGTCAATTGTCTAACAGGAGCCACAGG
AAGAGCTTCAGAGGCACCCAGATGCCAAGCCTCAATTCCCACTGTGACTCTACTCTGGCA
GAGGTGAGACTTCACCTTCCAGAACTATGCTGGGGGCTCTGTGTCTGTGGCATATTGT
TTATATTGTGTGTTTATAGGCAATTTTAACAATCACTGTTTCTAGATTGCAACCCCTCTG
AGGCACTGCGCTGACACAGCAAAGTTATCCCTTACTGAAGAGAAAAATTAGAGGCCTA
AACACCACAGAAGCCCTGATAATATGGAATATTAGCATCAATGTCAGAGCACAGTATTTA
GGACAGATACTGATAAAGACAGCATAGATGACCACCTCACCTTGTCACCACTGAGCGAG
GAGCCCTTAAAGATGGGTTTCC

Sequence 2101

CTCCTATAGGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACCAGGTTCAAATAGT
CAGCAGCTCATCATAATCAATGAGCGAGGACATAAAGTAGGAAAAATGCATCACCATGGT
GAGCAAGGAAAGCAAGTTATTGGAGGCACATGTTAACACATAAAATATAAAATTATATGA
TCACACTGGAAAGGCTTGCCTGAGCCACAGTTTGAATGCCTACAATAAGATGAGATGCA
CAACAAAAAGCAAGAGAACCTGATCAAGTGGGTGACCTGGCCATGGTGCTCTCATCAGTG
GGGACCCAAATGCTTATGTGGACTCACCAGGTATCGAATTAGACATGAATAGGAGTGTTT
GTTGTGATCCAAGAACTATATAATCAAATGAATACAATGAACTTTAAAA

Sequence 2102

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTACTTACTATTTTATGAGAATTGATTTTAC
TAAGCCTGATTTGAATGGGTGCAATTACACCAACTGCTATTTATTAATGAAAGTGGTAG
CCTGCTTTTTAAGTAATATGTGTTTGAACAGGAGAGGGTTTTCTGAGCTTTTAACACC
AGTAACCCCTGAACCTTCTCCAAATCCACACCTTTTATCCCCCTTTTCTGTCTCCTT
CTAGTGCCTCAGTCCTGGCATCTCGGGAGGACTCTGCCATTACTCATCTGTTACTGATT

Table 1

CTGAATCTTGTGCTCTAGCTCTACAGCCCAGTGAAGAAGCAATATATCTTTAATTCAGGG
CTTGCCTCTTGCTTTCCAACCTCTAACCTGAGAGCAGTGCTACTTTTGTAATTGCAGGTCT
AAATAACTTAAGCGTATATACAGAAGCCAATCACTGATCACTTCCATTGCAATGAGGCAT
CTGTTGTCAAAGAAGGAAACCATTGTCAAGTCCCTATAGATATTGAATCTTCAAACCC
AAATCTGGGGATGTTTACATTTCT

Sequence 2103

GATGGCGGCAAGCGATGCGCCCTCCTCGCACACTGNNCCGGCCAGCATGNNCGTGCGCAG
TTCGGCCAGCACGGCGCGCGCGCAGGCCAGGGTTTGACGCGGCCGTANTGTGCAATCAG
CTCAAGGCAAGCCGCGTCGCCCAGGATGCGGTGACCGACGGCAGGCGCACGGTTTGCCC
CGTCGTATGCTGGCTGGCCCTCGCCGCTGTGCTTCTTCCCAGCCACAGCAGCGGATTG
CCGCTGGCGCGCTGGTAGCCCGCTTCGCCACCAACAGGTGAGCATAAGCTGGCCAGATC
GTCGGCAGCGGTTGACGTTGTAATCGNGTTCCTGGTTGAAGACTTTGCGATAGGTATGG
CAATCGTCGCANGTTTCCGCGCGCGCCACCTTCTTCGGATCAATTCGCCTGTTGGGCAAT
TTGTCGTCTTCGCCGCACGGGGTCAACGGGTTTTCGTNGGCGCTCTAAACTAGTGGA
TCCCCGG

Sequence 2104

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGTAGATGGAAG
GAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGT
AGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATTTATAAACATCCTGCAGGAAAAT
GGTAAGCCCTTGGTTAAATTTATTGACTTCATTTATGTATCTCACAACACTTCTTTTCTG
TTTAGTTCTAGGAATAGAACTTACTTTTGGAAATACAGTACCTGCCCC

Sequence 2105

CACCGCGGTGGCGGCCGAGGTACAGGGCTCTTGATATATCCTGGCCTTAAGTCTCAGGTT
CTCCAACAAAGCTGGCAGCCTGTGGTATGCCCTTCTGGGGCCAGAGAGTGTGGCATGATCC
GAGGTCTGAGTCTCTCTCTCAATGAGCCCATCATATTGGCTTAACCAAAGCCAGTGCTC
TTCAGGACACGGAAAAGGGAGTCCCTTAGGCTCCAGGTTTTTTTCCCTTCAGTTCACACT
GGGAGAAGGGTCACAGAGCTCCAGTGAAATCTGGTCTGTAGATCATTTGTGGTTGGCT
GCAGATGCACATGTGGGCATGTGATAGTTTTGATTTAGATAAAAAAGCCACAACCTGAGTG
GAGTGTTGAAACCTCAGGGTTATAGACTGGTGTATCTGTGAGAAAACCACAACAAGTATG
GTATTTGCCCGCGTACCTGCCCC

Sequence 2106

CCGCGGTGGCGGCCCGCCGGGCAGGTACATGCCAGGCACAACTGGAGTCACAGATGCC
ACACTGACTATCACATTGTCTATCTACTCAGAGAGAGAAAAGGTGTATACCCAGTATTT
TCTTATGTTTTCTCTATACTTCCATATCCCCACCCCATTTATCCCCGAGACATTCCAG
TTGGAAGTCAGTTGCTTATGGGAACTGGCTGCAGGGGATCAGCCACCTGTAACACAC
GGAAAGGCAGAGAAAACATGAGTCATGGATTTGAGTGCAAACAAGCCCAGTCTCTGTACA
GAGAGTTACGGAAAAAATCTCACTGTTGAAGAGAGACATCTATAAGAGAGGTGAGGAAAA
TGACTGATAGATCCTTTTACAATATTCTAGGGTAGTCTGTCTGTGGGAGGGGGCAAGGAG
TCTATGGGAACTCTCTGTACCT

Sequence 2107

CCGCGGTGGCGGCCCGCCGGGCAGGTACCATGGCCAAAGCTGAGGCAGCCAGGGTGGGACA
GGGGCCTCCAAGCAACACAGCAGTGTTAGCAGTTCACCTGGACCTGTTGATGAGCTGTCT
TAGATGCACGAAGGCAAGAGATGTCTCATCTCTCTCTAAGATCTTAGATCTTAAGTGCAG
AGGGAAGGCAGCTGGGAGTGTGGACGGCAGCCACAAGGGAGAAAAGTGCAAGAGCATTTA
CAACCAGAAGAGAAGCCGAGGGGACATGATGGCCCATGGACAATGTAGCCATGGACAGTG
CCCTGGGAGGCTGGTAAGGGGGGTGCTGGGACTGGTGGTGAAGAGATCATTTTAAGAAA
AGAATCCCGCGTACCT

Sequence 2108

CCGCGGTGGCGGCCCGCCGGGCAGGTACATGCCAGGCACAACTGGAGTCACAGATGCC

Table 1

ACACTGACTATCACATTGTCATCATACTCAGAGAGAGAAAAGGTGTATACACCCAGTATTT
TCTTATGTTTTCTCTATACTTCCATATCCCCACCCCCATTATCCCCCGAGACATTCCAG
TTGGAAGTCAGTTGCTTATGGGAACTGGCTGCAGGGGGATCAGCCCACCTGTAACACAC
GGAAAGGCAGAGAAACAATGAGTCATGGATTTGAGTGCAAACAAGCCCAGTCCTGCTACA
GAGAGTTACGGAAAAATCTCACTGTTGAAGAGAGACATCTATAAGAGAGGTGAGGAAAA
TGA CTGATAGATCCTTTTACAATATTCTAGGGTAAGTCTGTCTGTGGGAGGGGGCANGAA
GTCTATTGGGAACCTCTNTTGTCTNNGGCCGCTTTTAACTAATGGATCCCCCNGGCTTGC
AG

Sequence 2109

TTTTTTTTTTTTTTTTTTTTGGGGAACAAGGTGAGGTTCTCTGAGGTAACATTCCCTAA
GACAGGAACCCCAGGACTTTCCAACCTCTAAGGATTTCCACATTGAGGATCCAGAAGTTT
TCAAAATTACCTCTTAAGTTTTCTACTAAGTTTATGGCCCCAGAGGCTTCTACTCCAGG
TAAGCAGTTCTCTGCAACTCTGAATTTGCTTGATTTCTAGATTTTAAGGTGACAGTTTG
CCCTGTAATATCAGTTCTCTGACGGGTCCAAGACAAGCCATCAATTTTAAGGTTCTTTAA
CTATTTCTTATTGNAAGGGATGGGAATTGGAAATGCTAAAGCTCTTTAAGATTTGGGC

Sequence 2110

AGGTACACACAGACCCCTGAAAAGCACCATGGCAGTAAGACCTTCCCCACATGAGTTGGT
AACCTGTAAATTATCTTAGCCTTTCTTATTCAACTTATCAAACCCCTCCTCAGAACTCCA
CACTATTACTTCCCCTTTGGTGACGTGAAGGGTTGGAACCCAGCATCTCCCATTCCCGA
TGAGTCATAACTCACACACTGCACAAAACGCAGTCCACATAACTGA

Sequence 2111

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACNCGGGGGTTTGATAGTG
GAAGGAAGAAGCTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTAC
TTGTAGGACCCCTATACGGCAACCTCCTTTGCCAGGAAGTATTTATAAACATCCTGCAGGA
AAATGGTAAGCTGAGACCAATGATGCTGACCTCCCTCAAAGCTGCATTTCTGAATTTCT
GAAGGCAAAGTGTCTGCCTATATTGTACCTTGCCCNATCAAATTTT

Sequence 2112

GGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACGCGGGGTGAAGGGCTCTCTGTAT
ACTGCTGAAGATTCTATAGTTTCTCCTGAAATCCATGAGGGAGCCCCCTGAAGGATTTTG
GCCAGGAAAGTGTATGAATCAAATTTCTATTTTAAGAATAGTATCGAGGCAGCAATGTC
AAAGTTTGTTTAGAAAATAGGATGGTTCCTGTAATCCCAGAACTTTTGAGACCAAGGCG
GGAGGATTGCTTGAGTCCAGGAATTGAGTCCAGCCTGGGCAACATGGGAGAGGACCTCA
TCTNTNCTAAAATTTNANTNNTNTAATAAAAGGTTCCCT

Sequence 2113

CCACTCCACTGAAATTTGCATTGGCTTATTGAAAGTCAATCACAAGTCAAAACCACAGAC
TCACATAGGAGAACACTGTTGTTTGGGCCAGCAGCTCTGAAATCAATACCTTTAATGGT
AGAACCTAAACTAAAATAAATAGGAAGGAAGGAAGGAGAAAGAAAGAGAANGAAG
AAAGAAAGAGAAAGGGAGAGAGTGAANNANAAAAAATGGAAAAATAAGTACCT

Sequence 2114

GGCTAGGCAGCTCTGGAGAAAGCAGAAGTGGATAAATAAGGTGTGGACTACCAAAGACA
GTTCCAAAGTCAATTTCACTCTGACACACTCTCTGTGATCTTCCACAGTCAGCAATGC
CTGCCCCCTGCTAGGCCTGATGGATGATCTGATAGAAAAGTGGCTTCAGCAAGGAGCTTC
CACAGGTAACCTTGGTTCTGCAGTGATAACAGCTCCTATGAAGGAGACCCCATCAGACTA
ACAGTGGATTTCTCAGCAGAAATCATAAAGGCCAGAAAACAGTGAATGGCATTTCAAA
ATGCTCTTTCCATTGCTTTTCCATACCACTGCTTT

Sequence 2115

TAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGGGCCCGGGCAGGTACCAAAAGAAT
GTTCATAGCAGCATTATTTGTCATAGTCAAGAGCTGGAAGCAACCCAGTTGTGCATCAAT
GGTAGAATGGATGACTAAATTGTAGTGCATTCTTACAATAAAATACTATAGAGCAATGAA

Table 1

AATAAATAAACTATGGCTATATGCAACAACATGGATAAATCTTACCAACAATGTTAGACA
AATGTAGCCAAACCAAAAAATACACATGTTCTATGAATCCATATATGCAAGGTTCACAAT
AGGTGATAGTAGCTACTCTTTTGGGAAGGAGTGAGGAAAGGACTGCCAGAGTATTGCAGA
GGGGGCTCCGGGTGTTTGTAAATTTCTATTTCCAGTGCANGTGTGGTTTGCATGAACATG
TTCCTTTGNGGAAATTCATTGNNGCTGTACCTAAATATA

Sequence 2116

CCGGGCAGGTACGCGGGGGTAGAACAGGCGATATCTTCACCATGCGCACAATGAAATCAA
TACTCAGAGAAGGCAGATAATTCTCCACGAAGCCAGAAAACATAAATGAACAACCTGG
GTGAAATGTCCACCAGACGGTGTGATATTTAGTAGTCCAGAAAGCTGCCAAGGGGTGA
ATGACACTATCTGAAGATATGAACAGTTTGCTCTCCATAGGGAGGATTTCAACAGG
AAACAGATGCCTGGAAGGCATTGGATTGCTAAGTGTCTATGCCATATGATTCTGCTGTT
TGCGTTTGATTTAAAT

Sequence 2117

CCGCGGTGGCGGCCCGCCGGGCAGGTACAAATTTGGGCATAGTCAGAACTCTGCTGACT
CTCTCTTCCCATTTAACCTAATCTTACCATAGCACTCCTCACCCTATGACTTGCCATTG
CAGTAAACCAGAAAGCAAAAAAGGTCAAGCACGTGTGTTTGAGATCCAACCTAGTGTT
TGTAGCAGCTCTGCAGAACCACAGTTTGCACATCTGTAAATTGAGCAATAACAACCTGCC
TGCCTGTTTCACAGGGTTGCTTAAAGAGTTATATGAGCTATTGCATGTGAAAGTGTCCA
TAAGCTGCCATTTGCTCTGAAGCTCACGGGTATAATTATTCTAGTCTAACCTACTTATGT
TTGCCCTCTTTTCTGCAGTTGCATCTTTGTGCATAAAGATTCTCTCTCAACCTGTGCAA
TTGATTCATCTTTAAAGACCAACTCAAATTCGACCTTCTAAAAGAAAATCTTCTGTGACC
TTCAACTCTAACTAGAGTAATTTACTAAGTGGTATTTATCACTTTCAAATTCTTCATTA
GGTCTTGAATCATAGAATATTGGTTACCCATTG

Sequence 2118

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCGCG
GTTTTTAAATCTGTCACTGTTCTTCCCCCACTTCAAAGCTGACTTGACAACCTGCATTTAT
TTCACATTGCAATTGCTGCAGGTTAATAATATTGTTTTATCAGGAAACATTTATCTTGAG
GAAGAAAGTTATCCTAATACAGCAGATAACTTATCCAAGGACAGATAGAAAGGGGACTGT
GTCTAGAGGGTAATGCTAATGCCTGGCATGCTATAAAAATAAATGAAATCTGATTAAACAC
TATTGGAGGGGAAGAATAAGTCATCGTTTCTATGAAATATTATTTTCCCTGATTGGAACCA
TTTCCATTTTTCGCAGCTTAAACATTGCATTAAAGATGAGATGACTTTAAACCCGGGGA
CAGCTATCTCAAGCCCTGTGGATTATNAATGGGGTATAGGCTTGTAATCCTATGGGTTTA
GACTAAAGTATTTCTTATAAATTGAAAAGAAAACNCACCTTGGAATTCAGAAAGATTTTA
ATTAAGGTGGTCAAAAAATTTAATGGGGGAATTTNAANGGCTGACTCCCTAAGTAGTTT
TGTTAATGATTTAATTTATAGAAGAAAGGCTTNGGCNAATTTGGTATGCCCAAAAGAG
CCTACTATGNCCCAANNNTTTTCTNNGGAGCNTTATTATTAAGNGGCCCGCTTTTCCNGG
TGGCNTCCCTNAGTCATTTTCNGCTTCATCCAAATTTGTGGAATTAANCCTACCCNTTTA
AATGGGGACCATTGGCTTTTTAAGGGGNNAAGACCCCAAAGGGTANATANCCTGGCNTTA
TGATAANTATTTTTTTT

Sequence 2119

GGGCGAATTGGAGCTCCCCNTGGTGGCGGCCGCCCGGGCAGGTACCAAAAGAATGTTTCAT
AGCAGCATTATTTGTCATAGTCAAGAGCTGNAAGCAACCCAGTTGTGCATCAATGGTAGA
ATGGATGACTAAATTGTAGTGTATTCTTACAATAAAATCTATAGAGCAATGAAAAATAAT
AACTATGGCTATATGCAACAACATGGATAAATCTTACCAACAATGTTAGACAAATGTAG
CCAAACCAAAAAATACACATGTTCTATGAATCCATATATGCAAGGTTCACAATAGGTGAT
AGTAGCTACTCTTTTGGGAAGGAGTGAGGAAAGGACTGAGAGAGTATTGCAGAGGGGGCT
CCGGGTGTTTGTAAATTTCTATTTCCAGTGCAGGTGTGGTTTGCATGAGCATGTTCACTT
TGTGGAATTCATTGAGCTGTAACATAACAGAAATTTATGAATGAAATGATATA
TAATTCATGGGAACCTGGGAGGATAGGGAGGAGGTGGGGGGANCTNAAAAACATGAGT

Table 1

GGCCCGAATGCTTAACAATTGGTATTGTTAGGTTATGGGATCCCGGGGGGTGGTTGTCCT

0

Sequence 2120

AGGGCGAATTGGAGCTCCACCCGCGNGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAG
ACTTGAAAGGTCACGTAGCTGATACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGA
CAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTC
TCTTGATCTGCAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCTC
TGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACA
AGATTTTACTCCATAACCCAGGCAGAAGTACCT

Sequence 2121

CGAGGTACTTCATACTACTTTAAGTTACCTCCTATTGGGGGCATTATAAATGGGTAAGCA
GAGAACATCATGGAAAGACATGGAGCTTAGTATATGCAAATGTTGAGTTACTCAGTGTA
TGTGTGAAAAAGGAGTTTCATAAGTTTCGGTCAGGGAAGAAGGCAGGGTCAAAATTTCTG
CTTGAGAGTTTGGGAGCTTGGGAGACTTTAAACAGGGAGCAACACAGCGCCTCTGTACC
TGCCCG

Sequence 2122

CGCCCGGGCAGGTACTAAACTATTCCAGGAAGACTTTAACTTTTGTGATTCAAAAGGA
ACATGGTGCATCATTTAGCACCGTAGGGTCATCGTTATGATAATCCATTTTATTACAGT
CCTGTGGTTCTCATCTACCCTAATATCCAGCAAGTGGTTCATTGCAGATTCTGATTTATT
CCATCCTACCTCAACCCTATTACCAACTATCACCACCCACCACCCGCCACCCAACTGGA
AGACAACCANAGATAAATCCTCAAGAAA

Sequence 2123

ATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCTGTCCATGTGATGAAT
TAGAACATGCTTTTCCACCTATAAACTACAACCTAATTTGCATAACTTAATATAAGTAGT
ATTAATGTAAGTGTTATACATATTTTCAAGTTATAATTTTGATTACAATTTGAAGACATAA
ATACAATTGGTTTAGTTATAAAATTACACTACTTACTTGCTACTTTATAACTGCTCACTA
CCTCCTTAGTGGAACCCAGATTTTCTCTATGATTTGAGAAAAATTACTCCACATGTTGCC
TAGTTATCAAACATATTGGGAAGCAGAAAAAGCTATGAAAGGCTTCAAAGCTTCTGAGA
ACCTTAGCACGAAAACTCTTCCAAAAAGCTTTTTTCACTTTTCAATAGTTCCTCTTTAC
ATCACATTTATAATCACTCACCAGCAATCTCTTTTCCATGCTTGATTTGTGAGGCTTATT
GAAAAAATGGCATTGACCGTTCATTCTGACTCCTTGATTTC

Sequence 2124

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTAAACTATT
CAGGAAGACTTTAACTTTTGTGATTCAAAAGGAACATGGTGCATCATTTAGCACCGTAG
GGTCATCGTTATGATAATCCATTTTATTACAGTCCCTGTGGTTCTCATCTACCCTAATAT
CCAGCAAGTGGTTCATTGCAGATTCTGATTTATCCATCCTACCTCAACCCTATTACCAA
CTATCACCACCCACCACCCGCCACCCAACTGGAAGACAACCAGAGATAAATCCTCAAGA
AACTTCTTTTAAAGAGGGTGGTTAACAAAGTTAAATTGGGTAGAAAACAGATGAAGCAAG
TTTAAATCTCTTTGCTGAGTAAGAATAGTGCCTACATGGTGTGGGTGATCATGTGTAAGA
CTCTGATGGGCAAACCTGGGGCCATTAGGAG

Sequence 2125

AGGGCGAATTGGAGTTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGAATGAGAGC
CTACAGTTGAAAGCACACTTGGATGAGGCTCGGACCCTGCTTCATGGCACCAGAGGAACC
CACCAGCACCAGGTTGAGCTTATTGAGCGAGATGAGGTTAGTCTTCATAAGAAGCTGAGG
ACTGAAGTAATTCAGCTAGAAGATACATTGGCCCAGGTCCGCAAGGAGTATGAAATGCTG
AGGATAGAATTTGAGCAGACCCTTGCTGCCAATGAACAAGCAGGCCCTATAACAGGGAG
ATGCGCCACCTCATCAGTAGCCTCCAGAATCACAATCACCAGCTGAAA

Sequence 2126

CCGGGCAGGTACGCGGGAATGAGAGCCTACAGTTGAAAGCACACTTGGATGAGGCTCGGA

Table 1

CCCTGCTTCATGGCACCAGAGGAACCCACCAGCACCAGGTTGAGCTTATTGAGCGAGATG
AGGTAGTCTTCATAAGAAGCTGAGGACTGAAGTAATTCAGCTAGAAGATACATTGGCCC
AGGTNCGCAAGGAGTATGAAATGCTGAGGATAGAATTTGAGCAGACCCCTTGCTGCCAATG
AACAAGCAGGCCCTATAAACAGGGAGATGCCACCTCATCAGTAGCCTNCAGAATCACA
ATCACCANCTGAAAGGGGAGGTCCTGAGATATAAGCGGAAATTGAGAGAAGCCCANTCTG
ACCTGAACAAGNACACGCCTGCGTTANT

Sequence 2127

GCCCCGCGTGACGAGCGGACTTGCGTCCGGCGTATCGGCGATTTGCGGGTTCTCGTTCAG
CAGGGAAAACAGGCGTTCCATGTGGGCCAGGCTTTGCTTGATTTGCGGGTAAATGACGCC
CAGGAAATTGAGAGGGATGTACAGCTGGATCATGAAGGCGTTCACCAGCACCAGGTGCGC
CAGGGTCATGCTGCCGTTGATCACGCCACGGTGCGCGCCACAGGATCAA

Sequence 2128

GGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAG
ACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGA
ATTCTACTGGTCACAGACAAGACTCTTTGATCTGCAAATACGACTTCATCATGCTGAGT
TGTGTGCAGCTGCAGCGGATTCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTC
ACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGG
AGTCCGGAGGAGCAGTCTCTCTGTCCCGCTGGAACCCATGGTC

Sequence 2129

CCGGGCAGGTACGAGATGCCACGGCACGAAGTCTACGTTCTCCTGATCCGAAACATCTTT
TTGAAAATATCAATCATTGGCATTCTTTGTTACTATTGGCTCAACACCGTGGCCCTGTCT
GGTGAAGAGTGTGGGAAACCCCTATTGGCCAGGACATCTACCGGCTCCTTCTGATGGAT
TTTGTGTTCTCTTAGTCAATTCCTTCCCTGGGGGAGTTTTTGAGGAGAATCATTGGGATG
CAACTGATCACAAGTCTTGGCCTTCAGGAGTTTGACATTGCCAGGAACGTTCTAGAAGTG
ATTTATGCACAACTCTGGTGTNGGATTGGCATCTTCTTCTGCC

Sequence 2130

AGGTACAAGGACTGCATCGAGTCCACTGGAGACTATTTTCTTCTGTGACGCCGAGGGG
CCATGGGGCATCATTCTGGAGTCCCTGGCCATACTTGGCATCGTGGTCACAATTCTGCTA
CTCTTAGCATTTCTCTTCCCTCATGCGAAAGATCCAAGACTGCAGCCAGTGGAATGTCCTC
CCCACCCAGCTCCTCTTCCCTCCTGAGTGTCTTGGGGCTCTTCGGACTCGCTTTTGCCTTC
ATCATCGAGCTCAATCAACAACTGCCCCCGTACCTGCCCCG

Sequence 2131

ACACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGTTCTCCAGT
GCCCAGAGATGCTCTCCGCACCAAGCCACAGATGTGGAGGAGGCAGGTAGGGGGTCAAAG
AGGGGTGGTATCGGTTATTNAGGACTTTTTTTTTTTCTTAAATATCCTGTGCTTCTTTCA
ATCATTTGAAGGTAAAAACCAGCNTCCCTGTGAGTGGTAANCTGATTTTTAGGTTNTTAT
GAAGGTATTATTTTCTGNGTAGATAGTNGTTAACTTGGTGTCTTGCANGGTAAGACGAT
CAGCGAAGCTTTCTGTTCCACCATCTTGCTCCTCTCATTTTANACCTAATA

Sequence 2132

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAAAGAACAACGGAAGCCTAAAGATGGACC
ACAAACCTTTGGATATCCAGGATAACTGAGTTAAAAACCTACCACACGGTTAATAAAAATA
ATGATGTCCACTGAGTCCATGACCACAAAACAAATCACCAGCAGCAGGATGGCATGGGCG
GCCCTTTTCGCTGGGGAGGGACTGGAGCAGAGGCTGGGGCTGTGAAGGTGATGGGATCAC
CTCTGATGGTTAAACAAGAGTACCT

Sequence 2133

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTCGGTTGCAAGCACAAGC
AAATGTGCCAGGGTGGTTGATGCAGCTGTGGTCACAGGTCCTATCCAAAGAGCACTCATC
CACATCTTGGCAAGACTTCTCATCTGTTAATAATTTAAATCCTTTCTTGACGCCCGCAGT
CAAACTGCCCACCGATGTTTTTGAGAAATGATCACAACCTCCATTGCGGGTCCCCGCG

Table 1

TACCTGCCCG

Sequence 2134

GGTACGCGGGGACCCGCAATGGAGGTTGTGATCATTTCTGCAAAAACATCGTGGGCAGTT
TTGACTGCGGCTGCAAGAAAGGATTTAAATTATTAACAGATGAGAAGTCTTGCCAAGATG
TGGATGAGTGCTCTTTGGATAGGACCTGTGACCACAGCTGCATCAACCACCCTGGCACAT
TTGCTTGTGCTTGCAACCGAGGGTACCT

Sequence 2135

CCGCGGTGGCGGCGGAGGTACGCGGGATGGAAAAATCACACTTCACAAGAGATCCATCCC
AGCTTAAAGGTGTCTTGTTCGAGCATCACTGAAAAAAGCACAATGGGATTTGGTTTAA
CTATTATTGGTGGAGATAGACCTGATGAGTTCCTACAAGTGAAAAATGTGCTGAAAGATG
GTCCCGCAGCTCAGGATGGGAAAATTGCACCAGGCGATGTTATTGTAGACATCAATGGCA
ACTGTGTCTCGGTACACTCATGCAGATGTTGTCCAAGATGTTCAATTGGTACCTGCC
CGGGCGGCGGCTCTAGAAGTAGTTGGATCC

Sequence 2136

CCGCGGTGGCGGCGGCGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
AATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAATACGAC
TTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCATC
TGCCTGGGCAAGTTCACCTTCCTGGGATGTCCCTGGACAAGAGACAAGGAGAAGGCCTT
AGGATCTACTGGGGGAGTCCGGAGGAGCAGTCTCTTCTGTCCCGCTGGAACCCATGGTCC
ACTGAAGTTCCTTATGCTACTTTCAC

Sequence 2137

CCGCGGTGGCGGCGGCGGGCAGGTACCAAGCAGAGGAGTTCACTCTTCTTCCCTGTTC
TGAATGCAGCCATTTTCAGGTCAAAGTCAAAGAAACCCTTCAGTTCCTGCACATGGGTGA
GATCATAGACGGTGTAGACATGAGAGCTGAGGTTGGAATTCTTACCCGGAATATTGTGAT
CCAAGGAGAAGTGGAGGACTCATGCTACGCAGAAAATCAGTGCCAATTTTTTGATTATGA
TACCTTTGGGGGACACATTATGATAATGAAAAATTTTACTTCAGTCCATCTTCTTATGT
GGAATTGAAACACATGGGTCAAGNAGCAGATGGGGCGATACCCTGTTTCATTTTCACCTGT
GTGGGGGGACCTTGGGATTATAAAGGGAGG

Sequence 2138

CCGCGGTGGCGGCGGAGGTACAACAGGCTTGTAGTTCTTTGTGAAGGATGCAGGCAAGAG
GGATGTCCAGTTTAGACGGGCCCCTGACAGCAGCAGCCTCTCCACATCAAGTGAAGTGTG
ATTGTTAACGATCATTGCCTGCACAAAGTATAGTTGCCTTTGAAGTAGTCCACCCAATAC
TTCACCATGACATAGCGGGGCAGGATTGGGGTGTTACATTTTGCTGATAAGATGGTGTG
TTAAAACTAAAGCTTGAAGAACTGGATAAATTAAGCTTGTAGTTTGAGCTTATTTTTT
AGGCTGGCATCTTGAGTAACTGTTGTCCAAGGGCAGCAGCCAGATTTCACCAGCACTG
TCACCAGAAATGCAAATTCTGCCTGGATCAACCATATACTTCTGTAAGACTTCTGGCTTC
AGGAAATACTTTGTGGCCCGTC

Sequence 2139

ATAGGGCGAATTGNTNCTCCCCGCGGTGGCGGCGGAGGTACGCGGGGGACAGGCCATCTC.
GCTATAGGAAAGGAAAGTGAACAGCATTATCCTCAACATTTTACGAAGACAAAATGA
AGACTGGAGTAGAAGACTGATCAGTGCAGGTGTAGCATAAAAGTGAATCCTGGAAGATG
TGGTGTGAGAAGCATCATCAGCATCATGCTATTACAATCCCAAACCATGGGGGTTTCTCA
CAGCTTTACACCAAAGGCATCACTATCCCTCAAAGAGAGAAACCTGGACACATGTACCT
GCCCC

Sequence 2140

GTAATTTAATCTTCACATCACTTTTACTTAGACCTTGATGAATGCTCCAGTCCCCGAAA
CCATGCAACTACATCTGCAAGAACTGAGGGGAGTTATCAGTGTTCATGTCCGAGGGGG
TATGTCCTGCAAGAGGATGGAAAGACATGCAAAGGTGAGTGAAGAGTCTCTGACAATCGT

Table 1

GACCCTAGTCTGTATCTTTCTTTCAAATTTAAATATTAGATTATCAGGAATTATGCCAT
GTGCATCACCTTCATTAAAAGGTCCCATCCTAGTGGCCATGTTATTGCTCATAAGAAAAA
CTCTACCAATATGCTCATTGCAGGAAGCAGAGAGGATTAAAAC

Sequence 2141

GTAATTTAATCTTCACATCACTTTTACTTAGACCTTGATGAATGCTCCCAGTCCCCGAAA
CCATGCAACTACATCTGCAAGAACACTGAGGGGAGTTATCAGTGTTTCATGTCCGAGGGGG
TATGTCCTGCAAGAGGATGGAAAGACATGCAAAGGTGAGTGAAGAGTCTCTGACAATCGT
GACCCTAGTCTGTATCTTTCTTTCAAATTTAAATATTAGATTATCAGGAATTATGCCAT
GTGCATCACCTTCATTAAAAGGTCCCATCCTAGTGGCCATGTTATTGCTCATAAGAAAAA
TCTACCAATATGCTCATTGCAGGAAGCAGAGAGGATTAAAACCCAAGTTAAACAGTTTG
CTTTCTTATAGAAAACCTGCCATAAATTT

Sequence 2142

TATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTAAGTCAAGGACGTCTTTAA
CGTCATGGACGGCTCCTAGGACAGCCACAGAAAAAATGGGGTAAAGGGGTAGGAAGAAA
AAAGGAAGGGAAAGAGAGCCAGGGAATTGGGGAAGGAGAGGTAGGGGAAG

Sequence 2143

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTAAGTCAAGGACGTCTTTAA
ATGTATTTTAGTTCTTCAGTCCCTGGGAAGGAGACAGGAGAAGGTGGGAGGGAGGAAGGG
GCCAGCTGAAATGGAACAGATCCCTGATCCGGGGCGGTTCAGTGGAACCTTTCTTGGTG
TGCCGAGAGCCTGTGTATTTAGAGGCAGCAAAAAAGTAAAAAAAAAAAAAATTGATCT
TTGTTTAGATTAAACAGACCCCTGACTATGAAGAAGGAAGGCATCCATACCAGAAACCGAN
AAATGTCTAGCAAATCCAAAAAGTGCAAAAAAGTGCATGACTCACTGAGGACTTCCCA
AGAACAGCTCGTTTAACCCGGCCGCTCTAAGAACTAGTGGATCCCCCGGGC

Sequence 2144

CGAATTGTTCTCCACCGCGGCGGGCGGCCCGCCGGGCAGGTAAGTCAAGGACGTCTTTAA
TGCTGCCCTNAACCCTCCCCAGCTGCCTTCCCTACTTTGGGAGCCTCTATTTCTAGAAC
AGGAAAACGCTAGGCTAAATATATGTCCTAATGGTCTCTTCCATCGGTGTGAAGGGGAAN
NAAAAATGGGCCAATGTTGTTGCAAGGAATTAAGGGAAGGTCCNTGCCCTGCCACCCAG
TGGGGNNTTAGGAAATCCATCTTTTACCGGNGCTCCAGTAGTAAGCCTGGTTGAACANGGG
TTCCAGGACCATCAAGACAAATTCCTGGTTTTCCCTGGAGGGAGGCNTTGTGTTGGGGGG
GCTCAAATATTGNGGGGGAATGAATNCTTGGGGTTCCCTTAGGACAAAAAGGGAGGCCCC
NCCTAACCTTGGAAATGGGGGGGGNGGTNCACNTGGGNGNATTANGCCAAGGGGGGGGGG
CCCAATGGGGCTTGAACCTATTTTTTGNCTCCCTNGGGGGA

Sequence 2145

GCGGCCGCTCCGGGCAGGTACGCGGGATACTTGGGTTGACCCTAACCAAGGATTGCAAAT
TGGATGCTATCAAGGTATTCTGNAATATGGAACTGGGGAAACATGCATAAGTGCCAATC
CTTTGAATGTTCCACGGAAACACTGGTGNGACAGATTTCTAAGTGCTGAAGAAAGAAAAA
CAACGTTTTTGGGTTTTGGGAGNAGTCCCATTTGNNATTGGGTGGGTTTTTTTCANGTTTT
AGNCTTACCGNGCCAAATTCCTTGTAACCTTTNCTGNAATNCATNGTNCTNTGGAATTG
TTGCTANNCTTGGGNCAATTTTNTCTCGGAACNTCTNCTTNCCANGCTCNGNAGAC
NTTTTNTCNNNAAGGAAANCCAATTNTACCAATTANTTCNAACCTTGGCCAAAAA
TTATGGTCAATTTTNGCCCATTAACCAATTNGGGNAATTCCANNGGGGCTCCAAGGTTGG
GGGAAAAAATTGGTTTANANAAGAAAAAGGGGCCACNCTTGGGAAAGGCCTTTGAATTG
GGGGGGGNTTACAAAAAATGGTAAAAGNGGGTNGNAAAAATTTNNAACAGGGGGCNTTN
NNAAGGGGGAA

Sequence 2146

AGGTACGCGGGAAGCACATATTTGGTAGCCTTTGCATACAAGAATGTGAAATTTGTTCTC
AAGCACAAAGTAGCACAGAAGAGGGAGGATGCTGTTTCAAAGAAGTGACTCGAAAACCTT
TCTGAAGCTGATAATAGAAAGGATGTCTCGGTAAGGGGAGAAAGATTGAAAAGNAATCC

Table 1

TTGTTGTNAAGAAAGAAATGAAAGTTGCTTGATTATNGAAGCTACAAACATTTTTCCATC
TTTNCCTATAAACAANCACTCTTGTTCCTGGGTCCGATGGGCTCATNTGATTGCTTTCC
TTCTTTATTANTTGNAAAGGAACCTTTNAACTCCCACAAGTTNNAACCTAACANNATT
GGTCCATTAAAGGTNGNCTTTTCAATTCCAGGGGAACCTTCAATNCGGNCCCCTTCCCT
NGATNCTAACNTTGGGGCCTTCCCCAAAAANTTAGGTAACCTAATTGGTTCAAGANCTTT
TCNACCCCCCTNGNGCCTNTTTTGATTGGTCCTAATTGGGG

Sequence 2147

AGGTACAGAGGCGCTGTCTTGGCTCACTGCAACCTNTCCCTACCAGCTTCAAGTGGCCCT
CTCATCTCAGCCTCCCAAGTAGATTGGGATTACAGACACGTGCCATTATGACACGGCTAA
TTTTTGATTTTTGTAGAGACCGGTGGTTTTAATACATGTTGACCCAATGCTGGGTCT
GAGNCCACACATNATGCCCGGCCCTTGATAGTCCTTATTTCTATTCAAAGCTTTCTTG
GGNGTATNGCCNTTTTTNTCTTAATTAATAAAAAAAAAAANAACTTTCCAAGGTTTTG
GAAGNGTGCCCTTCNCANAAAAAANGGTNGNAAATTTACCGAANAATAAGNTTACANTAAT
TTTTTAATAAATTTTAAATTAATTTCTTAATTAANTGGCAAGGGTAAANAATTTAA
TTAAANANGTGNNCTTTGNTNTTNGGGGAAAAGGAAATNTCCCTCGGTTNATTTTTGGG
CCAAAAAATTAATTTNTTNCCTTGGCCTNAATTAANTNTNGGTTATNGGGGTTGGNC
CTTTNNGTAAAAAATTTTATTTACCNCCAATTAATATANAATAAAATTAACCCCTTTCT
TTTTTTGGGAACCTTANAANAAGNGGAACCNNTTGGTTTTT

Sequence 2148

CGGCAGGTACCACACACACAGGCACACACAGGCACACGAGGCACACACGAGACACA
CACACATAAACACACAGAGTTCACTAGTCCGAGTTACTGATTTTCTTAGGATTCTCAAAG
TGACAACACCGGAACAAGGTAATTCATGTTAAACACAAGGGTTATATCAGTAAGAGAT
GGGATCCCCGAAGTAAACCGTGGAATTTGAATCAAGCTTCGAAGAGCTAAAAAGAAAT
TGGAGTTTCAACATTCACCTTCTTGAATCCTTAAGAAATACAGAAGTCAAATAGAAAA
CATTACAGTTTCAGGATACAAAAGTAGAAACATCTGAGATTA

Sequence 2149

CGTGGTCGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTGAACCAAAATCATAGATT
AGAGTTGGAAGTGACCTTTGTGATCATTATTTCAATCCTTTCAGAGAATTCTCTCTGCAG
GAATATCTATGTAGGACTTGGATTTGACCCAAGCACATACAATGTCTCAGAGGGCTCTCT
GCTCCTGGCCAAGAGCATCAGGTCTTGTTTTAAATATAATCAGTGTGTAAATTATGGCA
CAGAGAACAGGCTCATTGAGCTGTGGAATGAACTGAGTTAAATGGACTGTAAACATCCC
TAAATGAAAGAATTAAAAAGTCAAATGAGGAATTATATAGCCGTCCCTTGG

Sequence 2150

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTCAACAACACCACTGTAAGTCTTTGC
CATTCCCTTGTCTTAAAAACATTGCTGTTTCTTTAATGCATGGAAATCTAAATCATA
CAGATTGGGAATTTAAATAGTAAATAGGGGAAATAATTTTTTTTTTTTTTTGANACA
GTCTTGCTCTGTCACCCAGGCTGGAGTGCAGTGGCNCATCTCGGCTCACTGTAACCTNT
GCCTCCTGGGTTCAAGTGATTCTCCTGCCTNAGCCTCCCGAGTAGCTGGGATTACAGGCG
TGTGCCACAGGCCTGGCTAATTT

Sequence 2151

AGGTACTTTTTTTTTTTTTTTTTTTTTTANAAATGCCTCANACAGGGATTGA
TGTCAGGAGGCTTCAAGGAGAGAAATATACATGAATGGGAGACCCAGGTTGCAGGCAAC
AAGAGTCACAGGTATGGGAGAAACCAGGAAGTCTGTGCCATGTTAACTTTGCTCATCTCA
TCGTGCTTTGTACCTGCCCGGA

Sequence 2152

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGCG
GTCCCAGATTTGGTGGGACTCTCCTCTGGTATCAGTTTCAACGCCACTTCTTGTTTGA
GTCATTCCCAGTGCAAGTCTATGAACAAATACGGTTATTTAAATGTATTTGTC
CAGTATGAGAATCAGAATGAAGTAGTAGAGGCTTTACAGATCAGTTGGTCTGACCCATT

Table 1

TACAGATGAGGAAACAGGCCTGAGAAGATGGAGGGAGTTACCCACAATCTGAAGGGGCTC
TACCATGACTAGACCCAGGTACCTGCCTCCCAGGCCTGGCTCTTTCCACTCCGAGGTGC
TGGCTCACCACAGACTTATTCTTTAATGGAATTTTGAAAGGCCTCACTCCAGTGGACTC
TTTGGGATCT

Sequence 2153

CTNCTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGT
ACTAAGGCAGCAGAGTAGAAAGATGAAGTGCAAGGACCTGGAATCAGACACACCTGGGT
TCCTGGTAAGCTTCACTGCTTCCTGGTCTCTGATATCAGCTCTGCCCAAATTCAGCTGT
CACAGAATGAGTGATCCTCATAGTATAATGGAAATGCATCATCTCAGTTTCCCCATGGCC
TGAATATCCATACAAAATGAGAGCCCGGTAGAGAAAAACAGAGGACGTGAGGAGTTTTTA
AAAATTGAGGAAAAAGTGGGAAGGGAAAAAGTAAGGGATGAAAGGTGAAAGGATGAAAGG
GAATATGTTTCAAGGAGATGCCTAGGCACCTGGCATCCCCACCCACACAG

Sequence 2154

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTAGAA
AAATGGTTATTTCTAAGCCTCAGTGAAACGTGTCCAATGAAAGAAAAGCCTGAATTACCA
ACATGGGTTAGCATCACTCACACGCAGGCAGAGATAACAGCAAGTGTCTTAAGACTTT
TCTAAAACCTTCATGCCCTAAGGAGTAAAGATCCAGTTCATATAGGGTTAGCAACTGCCTT
CAGCGAAGAGGAAAACAGTAAATAATTAACAAAAAGATCAAGTCAGGAGATAAGGCCTAA
GAGAGACAGGACTGAAAAGGTTAGAGGGAGGATAGGTGAGGGCTTGGGAGACCTTGGAAA
AAACAGNAGGGAGCCGGTGAAGAATTAAGGTGGGGAGGACAAAACGGGCACCAC

Sequence 2155

CCGCGGTGGCGGCCGCCCGGGCAGGTACCGCGGGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCCTATACGGCAACCTCCTTTGCCAGGAACCTATTATAAACATCCTGCAGGAAAA
TGAGTCAAGGAAGCTTTTCTTTTGAGCTATTTACAGCTTTTAGCAATTGAGTAAAGTATA
CTCCTGTGAACAAAATTTGGAACATATTTGTTTCTCTCTAACTGATTTCTCCAGAATTTG
GAACATAAGTTGTAGCTGAGACCAATGATGCTGGACCTCCCTCAAAGCTGCATTTTCTGG
AATTTCTGGAAGGGCAAACTGTCTGCCCTATTATTTGTACCCTCGGCCCGCTCTAAGAA
CTAGGTGGGGATCCCCCCCCGGG

Sequence 2156

CCGCGGTGGCGGCCGCCCGGGCAGGACGACCAGTGTGAATGAATGGAGCAACCAAGAGGT
TAGGCAGTAGGAGATGAGGCCAGAGAAGAAAGAGGGTGTGGTAGCCCCCTAATGCTGGCA
CTTACTTCCACTGGATCTAAATCCAGCACGGAATTATGCTGACCACATCAGCCTAACTA
ATATTGATCTAAGTAACATTTATGTTCTAGCACCTAAATCAGGAGCCTGCAAAGGATAGC
CCTGTCGCAAAATCTGGCCCACTCTCCAGTTTTTGTAACTAAAAATGTTATCAGGAACTT
CAAGCCCCAAGGTCCATTTTATTTTACCAAANCTGGTCTTACGGGTGGGCAGGAGACCAAT
TACCGGCTCACAAAAGGNCTTAAAAATATTTTACCTCTCTG

Sequence 2157

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTGTTTAAAAAATCTAGAGAGAAAACTAT
AGAGAGTGTAGTGTGTGATTCAGACATACTAACCATCCTCACATGGACTCACTCTCTAAA
AACTCCAGACATAGCCAGAAAGAGGCAGAACAGCCACAGCAGGAGAGATCACTGATGCTC
ACTGAGGCAGAGGACTTTGTCATAACCTGTAGAAAACATTTTCCCAATGTCTCTTTACCA
CATTGGGATTATAAATTTTCTACATTCTTCTTCTTTTACTGGGGCATTNTATANCAA
NCTTGGAATACANAANATATGGNGAANAATTAATCNTTAAAAATNTAAATTTTACCC
ATCCCTTGTCNAGGACAAAATTAACATTCAATTTATGGAATC

Sequence 2158

TACACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCAGCTCTGTCTCTCCTCGGAG
CAGGATTCATCTTTTCCATGGCTGGGGCCCTTGACACATGTCACTGTGCACTGCTCTTT
TCGCTGGGATTTCCAAAAGACCTTGGCTCAGGTGTCACTTTTGCAGAAAAGCATTTACTG
ACTGTTGACTTGGCCAAATCCCTGTGCTGTGTTTCTAGCACGGTGAGTTGCATTTTCAC

Table 1

ATGAACTCATGCCTACCTTCTCTTGTGTTTTATAAGCTTCATGAGGCAGGTACCTCGGNCCG
CTCTAGAACTAAGTGGGATCCCCGGGCTGCAGGNAATTCNATATTNAAGCNTATTGAAT
NCCNCNAACCTTAAGGGGGGGG

Sequence 2159

CCGCGGTGGCGGCCGAGGTACATTTTACAAAATTAAAGTCACTTTGTAGGTATATAAAAA
GTTTTAAAAGTTGGTTTATTAATGAGAGTAGTGTACTACATTTCTTTCAAGCAGTAGTT
TAAATATTAACCAGTTTACTTTTTTTTAAAGTCAATTTACTTTTCCAGCCTGGACAACAT
GGTGAAACCTCGTATCTACAAAAATAGAAAAATTAGCTGGGCGTTGGTGGCTCACGCCG
GTAGCCGTGTTTCTTTTGGTGGTGATACAAATGGTTCTAACTGACTGTGGCACTGGGTT
TATTACAACCTCTGTGGACTATTACCTAAAAAATTCACCTGGAATTTGTACCTGGCCCCG
GGCCGGCCCGCTCTAGGAAGTAGTGGGATCCCCCGG

Sequence 2160

CCGCGGTGGCGGCCGAGGTACGCGGGTTTCTCAACATGGCTGCGCCCTTGTCACTGGAG
GCGGAGTTCGGGTGAGTCACAGAGCTGGGGCGCCGTGGGGATGGATTGAAGTCGTGGGC
CCAGAATTCCTTTCTTCTGCCGTGGGGCCTGACAnnnnnnnnnnnnnnnnnnnnnnnnnnn
nn
nn
nn
AGGGGTTAAATTGCCGCCGCTTGGGCCGTAAT
CAATGGTCATAGGCTGTTTTCTGTGGTGAATAATTGTTATCCCGCTTCAACCAATTTCCC
ACCACCAACATTACCGAAGCCCGGGAA

Sequence 2161

CCGCGGTGGCGGCCGAGGTACGCGGGGGAAATGTCAGAGATGGGAAGAAACAAGAATT
TGACATGCTTGGTGTCTTGGCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAA
TACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAAAA
TGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGGTGGAGGTGGAGCCTTCAGAA
GGTAATTAATGCCCTTGTAAAGAAGAGGCCAGAGAGCTTGCGCACCTTCTTCTGCCATGT
GAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACCCTCACTAGAAGCTAGCCA
TACTGGCATCCTCATCTTGGCTTTCCAACCTTCCAGAAGTGTGAAGAAGTATATGTTT

Sequence 2162

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGAACCAAAATCATAG
ATTTAGAGTTGGAAGTGACCTTTGTGATCATTATTTCAATCCTTTCANANAATTCNTNT
GCAGGAATATCTATGTAGGACTTGGATTTGACCCAAGCACATACAATGTCTCANAGGGCT
NTNTGCTCCTGGCCANAGCATCAGGTCTTGTGTTTTAATATAATCAGNGTTGTAATTAT
GGCACANANAACAGGCTCATTACAGCTGTGGAATGAAGTGAAGTTAAATGGACTTGTAACA
TCCCTAAATGAAAGAATTAAAAAGTCAAATGAGGGAATTNTATAGCCGNCCCTTGGTATC
CTCAAGGGATTGGTTCTAGGGACCCCTGGGGGATACC

Sequence 2163

CCGCGGTGGCGGCCGCGCCGGGAGGTACGCGGGGGCAGTGGGAAGCTCGCAGCAGCTGGG
GAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGAGGGAGATACACCAACTGGGAGATG
AGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGATCATTTGCGAAGGAGCAA
GGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTGAAGGAGCCAA
C

Sequence 2164

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGAGTATTGCTTAT
ATGTCCTTATGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATG
CACTTTTGCTCATGGTGAATATAGATGAACAGAGAGGAAAAATGATTTAAAAGAAATACG
AGAAAAGAAAAATGTGAAAGTTTTACAAGTTAGAGGGATGGAANGGTATTGTTNAATNNTT
GAATGCCATGGANNGCCNAAATNGNTTTTTTTTNGGCCNCCAAAAACCCCTTTAA
ANNNTNTTTTTGGGGACNTTTTGGNAAANGTTTTTAAAAGTTTTNATCTTTTNAACC
CCTTTTTTTTTTTTCCNCNCCNCCAAAAAGGGGGGTNTTNTTTTNNAAAAA

Table 1

AAAAANANGGGGGGGCCCCCNCCCTNTTTTTNGGGGGGGGGGGGGNGGNAGNTTTTTTT
TTTTTAA

Sequence 2165

GGTTAAACGAGCTGTTCTTGGGGAAGTCCTCCAGTGAGTCATGCACCTTTTTGCACCTTT
TGGATTTGCTAGACATTTTTCGGTTTCTGGTCTGGATGCCTTCCTTCTCATAGTCAGGG
GTCTGTTAATCTAAACAAAGATCAATTTTTTTTTTTTTTTTACTTTTTTGCTGCCTCT
GAAATGCACAGGCTCTCGCACACCAAGAAGGGTTCCACTGACCGCCCCGGATCAGGGATC
TGTTTCCATTTAGCTGGCCCCCTCCTCCCTCCACCTTCTCCTGTCTCCTTCCAGGGA
CTGAAGAACTAAAATACATACAGTTACCAGATTACAGCCCCGTCTAGTACCTTCGGCCGC
TCTAGAACTAGTGGGATCCCC

Sequence 2166

AGGTACGCGGGAAGGAGATGTTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCT
CCTTTGCCAGGAACTATTTATAAACATCCTGCAGGAAAATGCAGTGAAGTAGAAGAGACA
GGGATATCCCAGAAGGTTATGCAAAACATCAAGAGAAGATGAGAGGAGTCTATATGTCAG
AATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAA
AATGACAAGGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGTTGGGAGGTGGAGCCTTC
AGNAAGGGTAATTAATGCCCTTGTAAGGAAGAGGCCAGAGAGCCTTGTTGGCACCTTCT

Sequence 2167

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGGCAGCTAAATCTAGGATG
GNGTTAAGTTTCTTCATTTTGTCAATTATATAAAAAATTAGAAACAACATGAATCTGC
ATTTCTTGGATGAGATAGTTAATAACAACTATTTCTCAATATTTGTATACTAAAACTA
GTGAAGGTGTTATGTGTTTCAGTATCTTATCTTATTTGAACATGGGTTTCTGAAAGGA
GCCTATATAATAATATAAATGGTATGTANTAAATGAGGCACTGTCTTGGCTGGGACTGCT
ATAAAAAAATTACCATAGACCATTGGACTA

Sequence 2168

GACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCGCCGGGCAGGTACCCTG
CTGAAAGATTATTTCTAACAGGCTTGTAAGAGAAACGTCCGTTTCATGTAAATTAGAAATTA
TGGGGCCACTTTGCCATTCTTCACACCTGCAATGAACAGGTGTTTATCTGCAGTTCTGAC
TTATCTCTTGAACCTCATTTCGATGTTATAGTGGGATGCAGCTGATGCCCTGTCCAGATC
TTCTTCAGGCCACTACATCTATATATGCATTATTCAGTGGCTGTGAGTGTGAGTGTGCTG
TTGGTTGACAGAGGAGCTGCATCCTTCTGGAGGAACTGAACTCAGCTGATGAAAGCCAC
CTGGTCTGAGGTGAAGC

Sequence 2169

CGAATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGAGGTACTGCAG
CCATTGTTGCTCCCTTTGCCCTTCAGGGTGTCTTTCCCAGCATCTGTCCCTGCAGCACC
CCCACCCCTCACTCTAATTCTGAGCACTCAAATTGCCCATCAGTCCAAGCCTTCTCCTA
ATCACAGCCCTCCTACCTCTGAGCCCCCTCATGGAGCCCTGTTTCATGGTGTGCTGGCATT
TATGACAACTAAACCAAAAAGCAGTGAGGTTTGAAGAGAGTCAAAAGTCAATCCTG
GCAGGGGAGGATTTGCTCTTTGTCTTAAAAAACCAAGAGTACCTGCCCGGGGCGGCCGCT
CTAAGAACTAGNTGGGATCCCCCGGGCTGCAGGAAT

Sequence 2170

GGTGGAATCCGGTNGTTCTTTCTCACAATTTGGGATGAATTGGTCATAAGGGTTTTTTAA
GCATGGTTTTCCCTCCCTTTTCTTTCAACCCTCCCCCTTTTTTTCTTTCTAATTAAATCCA
AGAAGAAAACCTTTCAAAGGTTTAATGGGGGAATGGGTCCGGGGATTCTCACCAGGGC
CTTGGAGGAAACCTTCGGTTTCCACCCTCCCAANGCCANTTTTCATGGAAAAAANGCC
TNGCTTTCTTTATTTAAATTCATTAACCAAAAACCTTCTTCAACCCCATGGAATNGTGG
AAAAGAAGGTTTTCAACCAAAAAATCNTTTTTCAAAAAATAAAAAAAGGTTAAAT
TGGAACCTTTAANNAAAAACCTTGCCNNGNNTTNNNATNANTGANAATANANNNNNCCC
AAAAAGGTTACCCCT

Table 1

Sequence 2171

GTGGGCCCGGGCCCCCGGGGGCCAGGGGTTACGGCCGGGGGCCGGCCTCTTGGAACA
AGCAAGTCAAAAAGCCCAATCNTCTTCCGGNCGGGTTGGCCGCAANGGGCCGGGGGCC
ATTCGGCCGCCACCTTCTTAATGGGGCAATTTGGCTTGGGTTTCTTACCCAAACCGTTG
GAACCAGGGGTNGAATCCAAAGGTTTTAAAAGAAAAAGCCTTGGGAACCGTTCNCTTCTT
NCCAAACCGAACCCCTTGGGNTTTAATTGAAACCANTGTTTAAAAAGGTTCAATTCCTT
TTTTGCCCCACCCGTTGGTTGGTTTCCTCCGTTGGTTCCAAGGAAAAGGAAAAGGAATA
AAAAACCAACCGGCCCAATTCGAATTAAGGTTTGGGGAAAAACCCCGGGGAAGGAAAAA
AAAGGGGGGGGTTAAAAAATTAATTGGTTGGGGTCTTTGGTTTTTTTTTGAATTCC
CCCCCTTTTGAATTGGGGGAATTCCTTTTCCAAAAACCAATTTCCGGGAATTTGG
GCCCCTTTTGGTTNGTTTNCCTCCGNTTTTGGGGGAAAAACCCCAATTTTTTTTT
GGGGGCCAATTCCTTNAATTAAGGAAAAAANGGNAAAAAATTTCCCAANNCCTTG
GGAATTGGGAAGNCCCCCTTTTCTTTGGNAAAGAAAAAANGGGGAAATTGGGCCTT
TCCCCCGGCCAAAAAACCCCAAGGGGNCCTCCGGGG

Sequence 2172

CCGGGCAGGTACTTGTGCTTTGGTGTAGTGAAATGAATGCCTTGATGAAATTGCATTGC
ACCATTTTTGAAAGAGAGAATACTCAAACGTGTCACTTCTGTTTCTTGCAAGCAACTGTG
ATCCTGANCTGTGCCACACTTCTTGGTTGGGATTATTTCTCGGTTTCTACTTNCCTNGT
TCTGANAGTATGTTGGCCANNGTGTAGTAGTTGANACATAGTCNTGNATGCTCCACNCAC
TCTAGGCAATCAACNAGCACCNCAGTAATCTCAAACGTAATTTTCCATTGGGGTACN
CACCAAGNCATTCTTCCAATTCTTNTTGGNAGCTTGAATNCTCAGNAANATAGAAACC
CCCNCTTTACCTTGANTAGNTTNCNANNNAGGGCCACCCTTTTTTTTTTGAAAAAA
GGGGCCTTCTTGGCCTTTTTTGAACCACTTGNANAGGNTTAATTTTTT

Sequence 2173

AGGTACTTTATTTTTTTTTTTTTTTTTTGGCAGTGGGAGAGTTTTTTATTCAATTTG
TGAAGGACAGTTTTTAAGAACAAAATGTTANTANACACCTCTAGAAACCACTGGGTNGT
TCATTTGGACCATTTTTATCTGCCACCCCAATTTTTTTATTTACAAAAAAATTCNAAAA
AAAAAGGTTAAAAAATTTNCATTTCCCAAATTAATTTTTTGGCAANGGAGGTTATTAA
NACCCACANTTAAGTTNTNGCCNTTAAGNAACCAAAAAAAGGCCTTAAATTTTTTNC
TTAACCAAAAAAATTTCCANAAAAANACCTTTTAAANTNGGCCAAGGTTTTTTTTTA
AATTTTAAAGAAAAAGGAAGGTTCCANAAAAAATTTTCTTCTTCCAAGNTTTAAAAA
CCTTGGGGAAATTTATTAACCAATTAAGGGTGGGGGNTAATTANTTAATCTTTTAAAAA
AGGCCANGGAAAAAAACCCCCCCCAANAAAAAANAANCCAAAAAANNAACCCAGANGG
GGGAAAAAANAAGGGGAAAAAAATTTACCCATTTGGTTTNCAAAACCNAGGNTCC
CAAGGNTTATAAAAAATTAATTTTTTTTGAA

Sequence 2174

AGGTACGCGGGGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATAC
GGCAACCTCCTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAATGAGTCTATATGT
CAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTA
AAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGTTGGAGGTGGAGCCTT
CAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCACCTTCTCCTGC
CATGTGAGGAGCCAAGAAGCC

Sequence 2175

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTGGCGTAGCATTCCATGT
TCAGCTTTGACATTTATTTCTCATATCAACCCTTTTTACACGTGAAACACAATCCCGCT
CTTGAATTCCTAACTGCATGATCTGTGAAACCTGTATTTATATTTCTTCAGTGGTATTC
TTTGTGCGGTGTGTGTCTTAAACAAACCAAAAGAAAACCTTCCAAATCTAAAGTATTCA
TTCTCCAATTGGAGCAAGAGGAGTCAGTTAGATACTATCACGGCATTCAATTTGTGGCTGG
CTTGTCAATTTACTTATGATTGATAATAATCTATTTTGCTTTTAGAGCCTCCCGAGA

Table 1

AGCCATCTGCCCTTCGAGCCTGCCATTGAAATGCAAAAGTCTG

Sequence 2176

AGGTACGTGGCGTAGCATTCCATGTTGAGCTTTGACATTTATTTCTCATATCAACCCTT
TTTACACGTGAAACACAATCCCCGCTCTTGAATCTTAACTGCATGATCTGTGAAACCTGT
ATTTATATTTTCTTCAGTGTATTCTTGTGCTGTGTGTGCTTAAACAAACCAAAAGAAAA
CTTTCCAAATCTAAAGTATTCATTCTCCAATTGGAGCAAGAGGAGTCAGTTAGATACTAT
CACGGCATTCAATTTGTGGCTGGCTTGTGATATTTACTTATGATTGATAATAAATCTATTT
TGCTTTTTAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGCCTGCCATT

Sequence 2177

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTINACTTGTTAAAGTTCTTTTTACTGNNG
CTGTTATAAAATTTAAATTTATATGTGTGACTTGCATTTCATTTTATTGGCCAGGGATG
CTCCANAAGGTTGATGCCTGAAACTAGANATCCATTACCTTTCCTCCTCTCTAGGGCTTC
AAATTAGGTTTTAATTTAANAACACCTTGTCTATATATAATCAATACAAAAAACTTTACC
CACTTATTGTACTTTGCCCTGTTGACACTGACCTCCCATTTCTCCACCANAANAATAATC
AAACCCATCACCAACAAATCACCCATCCATTATCCCCGCGTACCTGCCC

Sequence 2178

CCGCGGTGGCGGCCGCCCGGGCAGGTACCGCATTCTACTTCATTGCCCCCTGATGTAAC
GGACTCCCAACAATACCCGAGAGTAGAAATCTTACAGAATATTTTGTGGCGTGATGTG
AACAACATGCTGCAGCTGTATGCCAGTATGCTGCATGAAAGGCGCATCGTGATTATCTCG
AGCAAATTAAGCACTTTAACTGCCTGTATCCATGGATCAGCTGCTCTTCTATACCCAATG
TATTGGCAACACATATACATCCAGTGCTTCTCCACACCTGCTGGACTACTGCTGTGCC
CCAATGCCATACCTGATTGGAATACACTCCAGCCTCATAGAGAGAGTGAAAAACAAATCA
TTGGAAGATGTTGTTATGTTAAATGTTGATACAAACACATTAGAATCACCATTTAGTGAC
TTGAACAACCTACCAAGTGATGTGGTCTCGGCCTTGAAAAATAAAGTGAAGAAGCAGTCT
ACAGCTACGGGTGATGGAGTAGCTAGGGCCTTTCTTAGAGCACAGGCTGCTTTGTTTGA
TCCTACAGAGATGCACTGAGATACAAACCTGGTGAGCCCATCACTTTCTGTGAGGAGAGT
TTTGTAAGCACCGCTCAAGCCGTGATGAAACAGTTCCTGAAACTGCCATTAACCTNCA
CTTTTTAAGCAGTTTATCGATGGTCGACTGGCAAAACTAAATGCAGGA

Sequence 2179

CGAATNGGAGCTCCCCGCNGTGCGGCCGACGTACNGTGATCATTACTCCCCAGCGCAGC
TCAATCCACTTNCAGACTGNTCTAATTGTNGGAATAATTNTCCTTATGTAATTCATNTC
CCATCTATTAATTNATGAGATATTTATTTAAACTGACCGTATTCCAGGAACTGGGCTAA
ACGAAGAAGAGTAGTGAATTAATACAGAAATCACCCCTNGATTTGGCAGAATATTNTCCCT
GGTAGTGATAGGTACCCCTATTGTGGTGATAATCCCCCANATCATACAGCANAAGAAACA
ACACACAGACAAAAACCAAGTCATNCTTCTAGGATGTTTTATCCAAGGATTTGAAAAGA
TTTAGGTGATCTTCCATTNTTCATCCTATGCAATCTGGGCTATGCTACTACTTTACAGAT
TGAAAATATATTTAAAAATCACTGAACTTTCAATAGTCACCAATGATCACTGTTCTAGTT
GCAGTTCAATTAGGTGTTCAAGGAAACACTTATAACTTAAATTTAATGTCTAAATCTTAC
ACCTTTAATTGGAAAAATAATGTAATAAGTGAGCAATTAGATTATCTAGTATTAGAAAAA
TAACTGAGGATTGGCTGGGCATGGGGCTTATGTTTGGTATCCAGCACTTTGGGANGCA
GAGGCAAAANGGATTGGTTTAAAGTCANGAGTTCNAAAACAACCTGGGCAAAACCGGCAA
GAACTNCATCTNTTAAAAAANNANNNNANNNNNNANGGTCTTGCCGGGCGGGCCNTTT
ANAACTTGTTNGGATCCCCCGGCTNGAAGAATTCCANTTTAANCNTATNGATACCGNGNAC
CTGANGGGGGGGCCCN

Sequence 2180

CCGCGGTGGCGGCCGCCCGGGCAGGTACCTGTGAACTGAGGAATTATAGATAAACCTTAG
GTCAAATCATTTCACAATTGCATTGGTGGTATTGAAAAATGATGAGATTTCTCTGACAGA
GAGCTTTGTCCTAGTTTTGTCTTCATAGGTCAAACTGGCAATATTCTCTTGTCTGCAA
GATAAAGTGTTTGTGCTTCTATCACCATATGCATGAACATGTAAGAATCAGATACAATTT

Table 1

CTGCTTCATCAGTTTCACATGTTTCATGTTGTCACTGAAAAATGCATCTACTGTTTATAG
CTCCCAAGGAGACCCCAATCCTTTTTTTTCTTTTGAGATGGAGTCTTGCTCTTGTTGC
CCAGGCTGGAGAGCAGTAGCGCGATCTCAGCTCACTGCAACCCCACTCCTGGGTTCAA
GTGATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGTGCCCGCTACCATGCC
TGGCTAATTTTTGTATTTTAGTAGAGACAGGCTTTCACCATGTTGGCCAGGCTGATCTC
AAACTCCTGACCTCAGGTGATCCACCCACCTCGGCCTCCGAAAGTGCTGGGATTACAGGA
GGTGAGCCACCCGCGCTGGCCCCGTATTCTTTTTTATACTGGAAAAACATTTTTTTN
GAATTTT

Sequence 2181

TATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTAATTATCCC
CAGAGGAAACAGGGTTTATGAGCACTGACAGATGTCTTCCCTGGGCAAAAAAAAAAAAA
TAGTATATGTATACACACACATACATTTATATTTATATTTCTTAAAGCTTTTAATC
CCTTTCATTCCCTGATATCTCAGAGATTTCAAATCATTGAACACTGAAGTATATTTTCA
GGCCAGATGAAAAATTGTATTAACCCCTATTCTGGTCAGGCGCAGTGGCTCACGCCTA
TAATCCCAGCACTTTGGGAGGCCGAAGTAAGCNGATCACCTGAGGTGGGAGTTCAAGAC
AAACCTGGCCAACATGGTGAAACCCCTGTCTCTACTAAACTACAAAAAATTANCCTGAT
GTGGTGTGTGTGCCTGTAGTCCCAGCTACTTANGAGGCTGAGGTAGGAGAATTGCTTGA
ACCTG

Sequence 2182

ACTACTATAGGGCGAATTGGAGCTCACCGCGGTGGCGGCCGAGGTACGCGGGGCTTGCCCT
GGAGTCTGATCTGTCCCGGCCAGTGTCTCCAGGACCCTGGCCCCCTCATGCCTCCGTGC
TTGCGCGTGTGCCATTTCTCTCTCCAGAGGACCTTCTCTGCTAGGACTCATGATTGTCC
CCTCCCTGGCATTTTTTACACCTGGAGCAGCCAGAGGACGCATGCATGGCTCTTCGGAAG
CCTTCTCCTGCCACGGCATGCACCCACACATGCGAGCCTCCCGGGTACCTGCCCG

Sequence 2183

CCGCGGTGGCGGCCCGAGGTACTGATCTAACCAAGATATTTGTTTTCTCATCCACCAG
TCACTTTCTCAGTCCTTTCTGTATCCCTTGCAATTTGAACAAAGCTTGGTGAATAGTGTG
CACACAAAAAGCACACTAGGTGAAAGACAGGTACATAAAAAAGGTAAGTCATGATATTT
TAACAAACCTATCAAGCTCTAAATATAAGCCTCCTTGGTAGTTTTCTCTTTAACCCCTCTC
TCCACTGTTGGATGAAATTTGCTGCAATTCAGTTCCACCCCAACTTCTTCTTA
ACACAAGGTGAGGGTTAAGCCTTCGGTGCTTTAATCCAGAGGAAAATTACTTATTTTAA
AAGCAGTGAAAAACACCGCATTCTTTGGCACAGGATGAAGACCAGCTCAGCTCTTCAGT
TGTTGATCATTGTCTATTGTTCTCCAAACAGTAAACCAGTATTTCACTGAGATTGTCC
GCTGCGGGTATATTCCAATTCCTCTCTCATGAATATGAAGTGAAGGGCTCTGACCC
TGGAAGTGGTAGGTAATTGCTTGGCG

Sequence 2184

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCTATACGGCAACCTCCTTTGCCAGGAATATTTATAAACATCCTGCAGGAAAA
TGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAG
AGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGCAATGTGATGGTGTGGAGGT
GGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACCTT
CTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACCCTCAC
TAGAAGCTAGCCATACTGGCATCCTCATCTTGGCTTTCCAACCTCAGAACCCTGAGAAGT
ATATGTTTGTGGTTAAGTCAATGGTCTATGGTAATTTTTTATAGCAAGTCCCAGCCCA
AGACAGTGCCTCATTTACTACATAACATTTATATTATTATATAGGCTNCTTTCAGAAACC
CATGTTCAAAATAAGAGATAAGATCCTGGAAA

Sequence 2185

TAGGGCGAATTGGAGCTCCCCGCGGTGGCTTGGAAGCCAAGATGAGGATGCCAGTATGG
CTAGCTTCTAGTGAGGGTCTCTTGCAGGTTGCAGACAGCCGGCTTCTTGGCTCCTACA

Table 1

TGGCAGGAAGAAGGTGCGCAAGCTCTCTGGCCTCTTCTTACAAGGGCATTAAATTACCTTC
TGAAGGCTCCACCTCCAAACACCATCACATTGCTGACATTTTCTGCAGGATGTTTATAA
ATAGTTCTGGCAAAGGAGGTTGCCGTATAGGGTCTTACAAGTAACCTAGGTGGCAGCAT
CCCCCTCCAGCGTCAGGTCTAAGCACACAAGTTCTTCCCTCCATCTACAAACCCCCGCGT
ACCTCGGCCGCTCTAGAACTAGTTGGATCCCCCGGGCCTG

Sequence 2186

CGAGGACGCGGGAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGAC
CCTATACGGCAACCTCCTTTGCCAGGAATAATTTATAAACATCCTGCGGGAAAATGCAGT
GAAGTAGAAGAGACAGGGATATCCANAAGGTTATGCAAAACATCAAGAGAAGATGAGAGG
AGTCTATATGTCAGAATACACATTTCCACCTTGCCAGCAGTAGAAAAACATAAGAAGA
GAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGCAATGTGATGGTGTGTTGGAGGTG
GAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGGCCAGAGAGCTTGCGCACCTTC
TTCCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACCCCTCACT
AGAAGCTAGCCATACTGGCATCCTCATCTTGGCTTTCCAACCTCCAGAACTGTGAGAAGT
ATATGTTTGTGGTTTAAGTCAATGGGTCTATGGTAATTTTTTTTATAGCAGTCCCAGCCA
AAGACAGTGCCTCATTTACTACATACCATTATATTATTATATAGGCTCCTTTTCAGAAA
CCCATGTTCAAATAAGAGATAGATACTGAAACACATTACACCCTTCACTAGTTTTTTAGT
ATACAAATATTGAGAAAAT

Sequence 2187

CGAGGTACATTATCAAGTGTGAGATGTTTGGGATATACGCAAGCTGTGCCTGGAATCAT
GACAGTGCCTCTATGCTGTTGATGTACCAGCCATGCCGTTTCTGCCCTATATCCTTTCT
TAAGGGTAAGTAATCTTAGTGCCTGGTGAAGCTAATTTTGTCTCACGAGCCCAACTGTTA
ACCTGAATCCAATACCTATGCTGCTGGTGAGACAGAGTGGGTATGAAAAACATATAACC
TGAAAAATCTACTTATATATGCTAACTAATAAACCTGAGGGATATGCAGGGGGAAAAAA
TCAAATTTTAAGGAAATCTAACACAGAAAATAAATTCACAATGAAATAAAACATAAAAT
TGTGCAAGCAAAAATAAAATACTACACTTAAACATAAAATATACTTGTTAAATATGGTA
ACTCTTTACCCCAACAATTAAAAAAGCTTTAATCACCAGTCTGATTCTATTTATTTTGCA
CTGAGATTCTTTCTATGAGAAATACATCACAGTTGATTACTTTAAAGCAAGCCCAT
TTAGTGGTTGAAANTAAAAA

Sequence 2188

CCGCGGTGGCGGCCGAGGTACGCGGGGTTTCATGCTCTCTCTCTCCATGCACAAGAAAGAG
CACACAGTGAGAAGGAAAGAGGCCCTCACCAGAACCTGACCATGCTGGCACCGTGATTGC
AGACTTCCAGCCTCCAGGATTGTGAGAAGATAAATATCTGTGGTTTAAGTCACCAAGTCT
GTGGTGTGTTTTATGGCAGCACAGGTAACCCAGATGATGCCTTTCACCACTGGGTGGTC
CAGCCTTTCATGGAAGCTGTCAGCTTCTCAGCCTTGCAAAAATGCTTGCTGGTCACTCT
CTTTGGTCCTTTCAGATGCCTTCTTAGTGGTGCCTCTACCAGGCCCTTGACTTCATCCT
TTTCTGTCAAGAGGAAGGGTGAGTAAAGTACCTGCCCG

Sequence 2189

CCGCGGTGGCGGCCCGCCCGGGCAGNACTTNTTTTTTTTTTTTTTTTTTTTTTTTTT
AACNGCTGTTCACTGCTACCCATTTAGTCAACTTGGACCACCCTNTAGAGGGGCTTCAAC
TGTTATTTTCAATACATTGTCACAGGGACAGAGGAGGGTGTTAGGGAACNTGTGACTAA
ANAGTTTTCCATAAATGGGTGGACCTCAGTTTACAAGCATTAAAGTTGTTGGGCCAGGAGG
GGGAACAGATCATGATTAGGAGAGTGGAANAAGATGACAAATCACTTTAAGTCANAC
AAACCTCTTTCTGTACCT

Sequence 2190

CGCCCCGGGCAGGTACGCCTACTCAACCCGGCTGTTCAACATTGGTGGCATCAGCATCCCA
TACACATGGAACACACCGTTTTCTATGATCAGGCACAGGGAAGAATGCCTTCTTGGTT
GAAACACTTCATGCATCCTCTGTGAATCTGACTATAACCAGATAGAAGAGACACTGGGTT
TTAAATTCATGCTTCAATATCCAAAGGAGATCGCAGTAATCAGTGCCCTCCGGGTTTA

Table 1

CCTTAGACTCAGTTGGACCTTTTTGTGCTGATGAGGATGAATGTGCAGCAGGGAATCCCT
GCTCCCATAGCTGCCACAATGCCATGGGGACTTACTACTGCTCCTGCCCTAAAGGCCTCA
CCATAGCTGCAGATGGAAGAACTTGTCAAGATATTGATGAGTGTGCTTTGGGTAGGCATA
CCTGCCACGCTGGTCAGGACTGTGACAATACGATTGGATCTTATCGCTGTGTGGTCCGT
GTGGAAAGTG

Sequence 2191

CCGCGGTGGCGGCCCGCCGGGCAGGTACACACAAAGACAAACCTGAACCTTAATTTCAAGG
AAAACCTAAACCCATGCACAAATAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTCC
ATGTGAGGACTCATGCTCTCTCCACTTTCTTCTTGGGAGGAGGGAAGATTTACCTAATGG
GTAAATTTGGGCAAAGCACATTGAGTGTGCTTGTGTTGGCTCTGAGTCTCTTTGCAAACAT
GTGTCTGCCACAGTGACATGAGTTTGCCTTGAAGTGTGCTGTCAGGAAGCTGCCTGC
TCCTGTGGCCATGTCAAGCAATTCTTTCTTCAACTGCAACTGTGTGTAAGAGCTTAGTC
TGAGAAGA

Sequence 2192

CCGCGGTGGCGGCCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTCAGGATN
ATTAGGAATCATTTCCAACACCAGGACAAATATGCAAAGTAAAGNNGGTATTGTTATTN
TTTGCCCTAGTTCACATGATTTANATTGATNAAAATGNNAATTTTACATATGTGAATA
AAACGTAAAGGAGCAAACCTGGANATTGCTGCCATGTGCTANCAATCATTGNGGGNNGGTA
AACTGACAACATGTAACGTGATATTAANACAAATGTAGAATTTANACAAAGTNTTCCATC
TTTTTNAGATGTATACTTTTAAACCTCAGGAAGTGTTCAGTAGATGTCATGCCTTT
AACTGAA

Sequence 2193

GGNGGCGGCGGAGGTACGCGGGGGTAAGATGGANGGAAGAACTTGTGTGCTTAGACCTGA
CGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTT
GCCAGGAAGTATTTATAACATCCTGCANGAAAATGAGTCAAGGAAGCTTTTCTTTGAG
CTATTTACAGCTTTTAGCAATTGNGTAAAGTNTACTCCTGTGAACAAAATTTGGAACATA
TTTGGTTCTCTCTAACTGATTNCTCCAGAATTTGGAAGTAGTTGTAGCTGAGACCAATGA
TGCTGACCTNCCTCAAAGCTGCATTTCTGAATTTCTGAAGGCAAAGTGTCTGCCTATAT
TGTACCTGCCCCG

Sequence 2194

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCATCCCCAAGGACA
CGGAAGTATTTCTCATCCTGAGCACTGCTCTCCGTGACCCACACTACTTTGAAAAACCAG
ACGCCTTCAATCCTGACCACTTTCTGGATGCCAATGGGGCACTGAAAAAGATGAAGCTT
TTATCCCCTTCTCCTTAGGTAAGCTGGACCCACAGTTTCTTTCCAGACACCAGAGGGCA
GGTCCATCCTCAACTTGAGAAAAAAATGACAGGTCTTATTAATTGAGCACTTAATAT
ATTCCAATTGCTTACCTGCCTTATCCCCTTCCATCTTCACTACAACCCTGTAAGGAGGC
TTGAGAAAGAAGATGACATTCCCAAAGGCACATCTGGGCAAGCAGGAAGTGGGCAAGTA
TTTAAACATCTCTAAACCTCAGTGAATTCATTTCTTAAAAAGAAAAAA

Sequence 2195

TCCCCGCGGTGGCGGCCGCTTTCTCTTACTGATAGTAGGATATTTCTGCTTTAGTTATTG
TCACCTTAAATATATTTTCAATGTTGAAATCCTCACAGCATGTTTGATGAAATCTAGTTT
TCAAATTTCTTAGGTATATTTCTGTCACGTTGGCATGATAACAAATGCAATAACCCAAA
AGACCCCAAAAGCTAGTGAATCCCTTTTGCAATCCAAGCATGAGGATTCATCTTCATGT
TGACAGTGCGTGAATGTTCCGTAGGCTTTGTCAAGCTTGCATACAATAAATTATATATGT
CCCTTTTCTTTTAGGCTCTCCTGTTGAAGATGGTCTTCTGAAGGCTAACTGCCGAATGAA
AGTTTCTATTCCAATAAGCCTTAGAATTGATGGACATG

Sequence 2196

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACACAACCTCACTCC
TTTTAAAGAAAAAATTGAAATGTAAGGCTGTGTAAGATTTGTTTTAACTGTACTCAC

Table 1

ATTGGANCCACTAGGAATCCTGAGAAAGAGGAGTGGACATACTCAGAGGAGTATAGGCCA
TTTGAATCGGCATTGGGAAACCTGGAGCCACACCTGGTCATTTCTGTGAGATCGATGAT
GGCACTCCCTGAAGCCTGATCCAGGTAGCCTTTGGTGTATTCATCATANGTGTACCT

Sequence 2197

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCCGGGCAGGTACAATATAGGCAC
GACAGTTTGCCCTTCAGAAATTCAGAAATGCAGCTTTTGAGGGAGGTGAGCATCATTGGTC
TCAGCTACAACCTAGTTCCAAATTCGGAGAAATCAGTTAGAGAGAAACAAATATGTTCCA
AATTTTGTTACAGGAGTATACTTTTACTCAAATTTGCTAAAAGCCTGTAAATAGCTCAA
AAGAAAAGCTTCCTTGACTCATTTTCTGCAGGATGTTTATAAATAGTTCCTGGCAAAGG
AGGTTGCCCGTATAGGGTCTTACAAGTAACCTAGGTGGCAGCATCTCTCCCAGCGTCAG
GTCTCCCCGCGTACCT

Sequence 2198

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCCGGGCAGGTACAATATAG
GCAGACAGTTTGCCCTTCAGAAATTCAGAAATGCAGCTTTTGAGGGAGGTGAGCATCATTG
GTCTCAGTACAACCTAGTTCCAAATTCGGAGAAATCAGTTAGAGAGAAACAAATATGTT
CCAAATTTTGTTACAGGAGTATACTTTTACTCAATTTGCTAAAAGCTGTAAATAGCTCAA
AGAAAAGCTTCCTTGACTCATTTTCTGCAGGATGTTTATAAATAGTTCCTGGCAAAGGA
GGTTGCCCGTATAGGGTCTTACAAGTAACCTAGGTGGCAGCATCTCTCCCAGCGTCAGGT
CTCCCCGCGTACCT

Sequence 2199

CCGCGGTGGCGGCCGAGGTACAGAGGTGATAGATCCCTTCTTGGTAGTGGTAATTCTTTC
CTGCATAGTACGCGGGGGCTGTAGTGGCTTCGTCTTCGGTTTTCTCTTCTTCCTGCTAAC
GCCTCCCGGCTCTCGTCAGCCTCCCGCCGGCCGCTCTAGAACTAAGTGGATC

Sequence 2200

ACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACAGAGGTGATAGATCCCT
TCTTGGTAGTGGTAATTCTTCTCCTGCATAGTACGCGGGGGCTGTAGTGGCTTCGTCTTCG
GTTTTCTCTTCCCTTCGCTAACGCCTCCCGGCTCTCGTCAGCCTCCCGC

Sequence 2201

CTACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTTTTGNTTTCAAACCCGCTTATTTACGCGAGGACTCCTCTGCGAAGA
CAGGAAGGATGGGGTCCCACACCTGAGCCAGGCGCGGTCTCCACTGGGTGCTCCGCAGCC
CGGAGTGGNTCCGGACGACAGCCCCGCTTAACGGAACCTTTCNCCCAGGCTNGGGTGGAC
CTTNTCCGCTTGTTTTCTNAGGGCGCAAGTCAGGTTTNTTTGACACACACCAACCGAAG
TTNAAGCGCGTGTCCCCGCGTACCTNNGCCGCTCTAGAACTAGNGGA

Sequence 2202

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACNATGTN
TAGTGATGAGTTTGCTAATACAATGCCAGTCAGGCCACCTACGGTGAAAAGAAAGATGAA
TCCTAGGGCTCAGAGCACTGNANCANATCATTTACCCNCGTACAGTTTAGGGGATCCTT
TNTAATGACAGGAAGGCACTGCTTCTCAACACTGTNATCTGACCTGTGACAAGTCTGN
ACCT

Sequence 2203

TCGCACTCATTTACCCGGGGACAGGGAGAGGCTCTTCTGCGTGTAGTGGTTGTGCAGAGC
CTCATGCATCACGGAGCATGAGAAGACGTTCCCTGCTGCCACCTGCTCTTGTCCACGGT
GAGCTTGCTATAGAGGAAGAAGGANCCGTCGGGAAGTCCAGCCACNNGGAAGGGCCGT
NNTTCTTTGTAAGNTTGGTTTCTNCCCCGGCCTGGCCCTACCCCGCGTAACNCTCCGGG
CCNGCTCTTAAGAAACCTANGTTGGGGATCCCCCCCCGGGGACNTGCTAAGGGNAAATTT
CNNAATATCANAGCCTTTATNCGNATTNCGGTTCTGTACTCTTGAAGGGGNGGGGGGC
CCCCCGGNTTAACCCCCAAGCNTTTNTTGGTTNCCCCCTTTTAAAGTTGGAAGAGG
GGTTTTAAAANTTTGGGCCGGCCGNCCTTATNNGGGCCGTTANNANTTCCAATTGGGG

Table 1

NTTCCANTTAAAGGGCNTTGGTCNTTNTNCCCCCTTGGNTGGGTTNGNANANAAATTTTGG
GTTTTAATTCCCCGGCCTTCAACCAAAA

Sequence 2204

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTTGTAGA
TGGAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTT
ACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATTTATAAACATCCTGCAG
GAAAATGCAGTGAAAGTAGAAAGAGACAGGGGATATCCAGAAGGTTATGCAAAACATC
AAGAGAAGATGAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTA
GAAAAACATAAGAAGAGAAAAACATTAAAAATGACAAGGAAGTTAATGGAAGTCAGCAA
TGTGATGGTGTGGAGGTGGAGCCTTCAGAAAGGTAATTAATGCCCTTGTAAGAAGAGG
CCAGAGAGCTTGCGCACCTTCTTCTGCCATGTGAGGAGC

Sequence 2205

CTCCCCGCGGTGGCGGCCGCCGCGGCAGGACGCGGGGTTTGTAGATGGAAGGAAGAACTT
GTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTA
TACGGCAACCTCCTTTGCCAGGAACCTATTTATAAACATCCTGCAGGAAAATGAAGTCTAT
ATGTCAGAATACACATTTCCACCTTGCCCAACAGTTNGAAAAACATAAGAAGAGAAAAA
CATTAAAAATGACAAGGAAGTTAATGGAAGTCACCAATGTGATGGTGTGGAGGTGGA
GCCTTCANAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACCTTCTT
CCTGCCATGTGAGGAGCCAAGAAGCCGGCTTGTCTGCAACCTGCAAGAGGACCCTC

Sequence 2206

ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATG
GAAGACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTC
TTGACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAG
ACTCTCTTGATCTGGAAAAATACGACTTCATCATGCTGAGTTGTGTGCAGCTGCAGCGGAT
TCCTCTGAGCGCTGTCTATCGCATCTGCCTGGGCAAGTTCACCTTCCCTGGGATGTCCCT
GGACAAGAGACAAGGAGAAGGCCCTTAGGATCTACTGGGGGGAGTCCGGAGGGAGCAGTCT
CTTCTGTCCCGCTGGAACCCATGGTCCACTTGAAGTTCCTTATGCTACTTCACTGAGCA
TCCTATGAAATACACCACTGAGAAATTCCTTGAAATTTGCAA

Sequence 2207

CCGCGGTGGCGGCCGAGGTACTTTTATAAATACGCCAGAGATTGAGTCGAGGCTCTGAAG
AAAGTCCACCATGTGAAATTCCTTCCGGTGACATTATCCAGTTTGAGTAGACGTGACAG
AGAATACACGGAAAGTTACCCATGGGTGTATTGTTCCACAATAAACTTTTTCTACCCA
GATNGGTATNGGAAGCCCGCTCCGCTCAGATGTCATCCATGCACCATTACCAAGTCCTG
TTGACAAAGTTGCTGCTAACACTCCAAGTATGTACCTG

Sequence 2208

CCGCGGTGGCGGCCGCCGCGGCAGGTACACACAAAGACAAACCTGAACCTAATTTCAAG
GAAACTTAACCCATGCACAAATAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTC
CATGTGAGGACTCATGCTCTCTCCACTTCTTCTTGGGAGGAGGGAAGAATTACCCTAAT
GGGGTAAATTTTGGGCAAAGCACATTGAGTGTGCTTGTGGCTCTGAAGTCTCTTGC
AAACATGTGTCTGCCCACAGTGACATGAGTTTGCCTTACTGTCATGTCTGCAGGAAGCT
GCCTGCTCCTGTGGCCATGTCAAGCAATTCCTTTCTTCAACTGCAACTGTGTGTAAGAG
CTTANTCTGAGAAGAAATGTTTCAAGCTCACTTGTGGGCTGCACATCTGAGCCATGTCT
TTCCCA

Sequence 2209

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAA
GACTTGAAAGGTCACGTAGCTGAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTG
ACAAAGATAGACCACTGGAACAATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACT
CTCTTGATCTGCAATACGACTTCATCATGCTGAAAGTTGGTGTGCAAGCTTGCAGCGGAT
TCCTCTGAGCCGCTGTCTATCGCATCTGCCTGGGGCAAGTTCACCTTCCCTGGGATGTCC

Table 1

CTGGACAAGAGACAAGGAGAAGGCCTTAGGATCTACTGGGGGAGTCCGGAGGAGCAGTCT
CTTCTGTCCCGCTGGAACCCATGGTCCACTGAAGTTCCTTATGCTACTTTCAGTGAAGCAT
CCTATGAAATACACCAAGTGAAGAAATTCCTTGAAATTTGCAA

Sequence 2210

AGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGGTCT
TTTGAACCTCCTTCGGCCACCGTCGCCCGCTTCTCGCTGTGCACTCTTATTCTGCGCCTGC
GCGCGGTACAGCACGGTTCGTTTTTCTTTAGTCAGGAAGGACGTTGGTGTGAGCATA
CCGTATCAAGGACAAGTAAGTACCATGGCTCCCGAAGTTTTGCCAAAACCTCGGATGCGT
GGCCTTCTGGCCAGGCTGTCTGCNAAATCATATGGCTGNANCAATTCGNNCTATCCCT

Sequence 2211

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACAAAACAAGCAAAGTCT
CCCATAACTGAAACAGAGGATTCTGTTTTAGAAAAAGGCCAGCTGAGCTTANGAGCAGA
GAAGGAAAAGAAGAAAATAGAGAGCTTTGTGCATCTTCTACGATGCCTGCAATTTAGAG
CTTGCACTATTGCTTATGGGAAGGAATCTTCAGATTGAAGAAATTAACCTTTCTCTCCC
AAGATCATCAGCCTAGAGTCGAAAGAACCACTGCCTCTGTAGCTGAAGGAGGCAACCCA
GCAAGAATTTAGCCATTTACTTTTTCTTTAAAGGATTATCANAGGAGGTTAGCCATCC
AGCCCGACTTTAAAAGGGAGGAAATCAAGAAATAGGCCCATTAACCAACTGGAAATT
TGAAGGCACAAGTCATGGGGAGATATTTTANAATAAGCTAAGTG

Sequence 2212

CCGCGGTGGCGGCCGAGGTACGCGGGGACAGCGATGTGAGCTGAGGTGCAGGCACCAGAC
CTAGGAATTCCTAGAAAAATAGTCAGGAAGCATTTAGACACATCAAATGTTAAACGAGTC
CTGATTATGATGATAATGATGATGATTTGGTGGTTGCAATAGCAAAGCCTTAAGTATGA
AGGAGACGTGCCAGCTGGAATACAGGTAGACAATGAACAAGTGAATTTAGAGGACGAAG
ACATTGAAAGCATTGATGCCACCAATTTAGCCGTTTCATTGAGATCAACAGCCTCCACA
TGGTGACAGAGTACCTGCCCC

Sequence 2213

CACTNCTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGGACCCGGGGGCTTGN
CCCCNATGCCTCCGTGCTTGC CGGTGTGCCATTTCTCTCTCCAGAGGACCTTTCTGCG
CTAGGACTCATCATTGTCCCCTCCCTGGCATTTTTTACACCTGGAGCAGTCAGAGGACGC
ATGCATGGCTCTTCGGAAGCCTTCTCCTGCCACGGCATGCACCCACACATGCGAGCCTCC
CGGGTACCTGCCCC

Sequence 2214

AGGTACAGGCATGAGCCACTGCGCCTGGCCCCATGTTTGGTTATTATTAGTGCTTAGGAA
GAGGCACTTGCTTACATAGTAGGAGTTGAGAAGCTTGGTTTGTCTTTCTACCCCTAGA
TCTATTCTCACCTCCTGACCATGCTTTCTGCCACATCTATTATCATTACAAGTTGCCT
TATCTGAAATTAGTGAATCAGAAAAATAAGCAGGGGATACTTTGTGTAGTTTCAACGTTA
GGGAAAGTTCAGAATACTGTCTGTCTAACTATCTCTCTAGAAGGCCTGATGGGCCACAA
CCTGGGCCAGAAGCATTGAGTTGAGATATGAGAATGGTGGGGTGTAAGGGGCAATGGCCA
ATGGGCCATGGCCGAAGGAAATTGTTACAGAGTAGTGGGAAGCCTGCAAAGACTGGCTT
CTGTCCGTTTTTGCCTT

Sequence 2215

CCGCGGTGGCGGCCGGGGGCCATTGAGACTGCCATGGAAGACTTGAAAGGTCACGTAGCT
GAGACTTCTGGAGAGACCATTCAAGGCTTCTGGCTCTTGACAAAGATAGACCACTGGAAC
AATGAGAAGGAGAGAATTCTACTGGTCACAGACAAGACTCTCTTGATCTGCAAATACGAC
TTCATCATGCTGAGTTGTGTGACAGCTGCAGCGGATTCCTCTGAGCGCTGTCTATCGCATC
TGCTTGGGCAAGTTCACCTTCCCTGGGATGTCCCTGGACAAGAGACAAGGAGAGGGCCTT
AGGATCTACTGGGGGGAGTCCCGGAGGGAGCAGTCTTCTGTCCCGCTGGAACCCATGG
TCCCTGGAAGTTCTTATGCTACTTTCACTGAGCATCCTATGAAATACACCAAGTGAAGAA
TTCCTTGAAATTTGCAAGTTGTCTGGGTTTCATGTC

Table 1

Sequence 2216

GGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGATTGACATCCCACACTACC
TGATTTGATACACTAAGAAGGGCTTATCATTTCTGTGGTACTCTTGGCCAACAATGCACG
TGTAACATTTATTCAATTGAAACACATTAGGCAGAATTGCAGGACATTCTTCAAAATAGCT
GTCCCAATACTCTTCAAAAGTGTCAGGTCTTGGGAAGACAAAGAGATACTGAGGAACCATC
ACAGAGTGGGAGAGGACATAGAGTGATAAACTAACTGTGATGTGGAATCCTACATTGG
ATCATGGACCAGAAAGACAGCACTGATGGGAAGACTGATGAAATCTGAATAAGTCTGTAG
NTTTGGTTTAAAGAAGAATAATAACAATAATGGTTTAGCTGCTGGCTCCTTAATAAA
ATCCCCCTAGTTACTGTAATGTCTGAAAATGAACCCC.

Sequence 2217

GACTNCTATAGGGCANNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTT
TTTTTTTTTTGAGCCTCANTTGAACATTTCTTGTCTTCCANAACACTCAATTCAAATG
GGTTTTCCATCTATCATGAGTCTAGTGTCTCACCTTTGTCTTACAATTAATTTCTTCTGC
ANATCCCCTCACACTGATCTCCTCCCCCTGAGCTTTGGACAATTATTTCTCTCATCTCT
TTCACATAAATCGCACTTGGGAAGACAACTCCTCAGGTTAAGCTGCCATCTGGTGTGTGT
ATTTTTCATCAAGAACTAGCAACACCCACATCAATAGCATCCACCTTTACCATCACCTAT
ATAAGCAACTTACTTTGGGAACCTATTTCTTATTTTCAGCATTCTCATTTGAATCAATCT
AGCCTAGGTTAGGGACACTGGAACCAAATTTGGGCTGTCCCTGGACTGGCCTGGG

Sequence 2218

TACGACTACTATAGGGTGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTCGNCAATTCAAAGTAAACCAAATCATCACATCAAGAAAA
TACATTGNGCAACTNTNATGTCCCTTNTGACAAAAAAGGCACATAGCCAGGNGTATGTT
CCCTGGAAGCTTAAATCTANTTGGGGACAATCAGGCAAGAGCACAAACGGCCTNTTGNT
TGGGCTGNGGCAAAAGCTGGATTTTATCCTAATTGCNACAGGATGACATCAGGAGAGCA
ACATGATCTCATAGANATTCTTTTAAATATATGAATTTTAACTT

Sequence 2219

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCG
GGGGCAGTGGGAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGC
CGCAGGGAGATACACCCAATGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAATAAC
CCACACAGGATCATTTTCGGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGG
ACAACTTACTGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTT
CTCCTGGCTCTACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGA
GGCGATCTATGTTTAAACCATCTTACTAACCAATTATTGCTATGGGTGGTATACACTGCC
TATGCTTTTATTCCAATCCAC

Sequence 2220

GGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATACACCCAATGGGAG
ATGAGGAAACAGCAACCCAGAGAGGAGAATAACCCACACAGGATCATTTTCGGAAGGAG
CAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGC
CAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAA
TCATTAGCTGCTGTGCTGTTTATAGAGCCCTGGGAGCGATCTATGTTTAAACCATCTTAC
TAACCATTATTGCTATG

Sequence 2221

NGGCGAATTGGAGCTCCCCGCGGTGGCGGCNCGCCCGGGCAGGTACTTATTTTTATATTA
AGTCAGACTTCAGGATTTATTTAGCCTTCTTTTTGAGAAGCTTTCTAAGCCCTCAGCA
TTAAGCAGCATTTTTCTCATCGCACACGGATCTGAGCAGGTGACCGCGCTGGGATAGG
TCTGTTGTGTTGTGTCAGGTGGGCTGGCCAGCCGTTGGGTGTGTGTTTTCTAGAGTA
AGAAGCACTCCAGGCTGAGATGAGAGCTGTTGAAATGAGTAACATTTCCGTCTCCTGTGA
TACGCGCTGCTGTTGCTTCTTTCAAATGATCAGATTTACATTCTTTAATGGGTCCTTTA
AAATGTAATCGAGNGAGAAGGACTTCTAAAGATTTCTTTTGGCCTGGAATCACACNAA

Table 1

GGGGAATTGGAAAATTACTAATTCATGAAAATGAAAATGTGGGCTTCTTTAAGGAAAAA
TTCCTTTGAACATTGACAGAAGTGGGCCGTAGGGAAGGGGAAGAATTTGCCTGGATTCTT
CACTTAACCTTTGTCACTGAGCATNCTGACTCCCTAGACACAAAGTGATGGAAGTT
ATTTTGTTCCTCACTCTTAACACTGTCTCAAGGGGGACATTGATGGGATGGGNGG

Sequence 2222

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGCAACAGAATGAGAAGC
TACAAACAAGAAATGGGAAAACCTGAAACAGATTTTAAAGGTCACGGATCGCTACAGT
GACGAAGTACGGAATGAGCTCCTGGGGGATGATGGGAATTCCTCAGAGAACCAGAGGGCA
CATCTGCTCGATAACACAGAGAGGCTGGAAAGGTCATCTCGGAGACTAGAGGCTGGATAC
CAAATAGCAGTGGAAACCGGTAAGAATTCTGAGAGTGAGCAAATTGTCTTGCTTATGCAC
AGCAGTCTTCACAACACATGACATTTCAAGGAACTTCAAAGGAGTAGCANAGACAGCAN
CCCGAGATGTGGTTTACATATTGGGGAGACAATTGGGAGCTTATTTGCGCTTATCTTTTT
TCAAGGT

Sequence 2223

AGGTACACACAAAGACAAACCTGAACTTAATTTCAAGGAAAACCTAAACCCATGCACAAA
TAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTCCATGTGAGGACTCATGCTCTCTC
CACTTTCTTCTTGGGAGGAGGGAAGATTTACCTAATGGGTAAATTTGGGCAAAGCACATT
GAGTGTGCTTGTGGCTCTGAGTCTCTTGCACATGTGTCTGCCACAGTAACATGA
GTTTGGCTTACTGTCTGTCTGCAGGAAGCTGCCTGCTCCTGTGGCCATGTCAAGCAAT
TCTTTCTTTCAACTGCAACTGTGTGGTAAGAGCTTAGTCTGAGAAGAAATGTTCAAGAAGC
TCACTGTGGCTGTACCTGCCCCGGGCGGC

Sequence 2224

CTACTATAGGGCGNATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACACAAAGACAAAC
CTGAACCTTAATTTCAAGGAAAACCTAAACCCATGCACAAATAATTGGTGAGCCTTCATTT
CCCTGACTTCAAGTTTCCATGTGAGGACTCATGCTCTCTCCACTTTCTTCTTGGGAGGAG
GGAAGATTTACCTAATGGGTAAATTTGGGCAAAGCACATTGAGTGTGCTTGTGGCTCT
GAGTCTCTTTGCAAACATGTGTCTGCCACAGTAACATGAGTTTGGCTTACTGTCTGT
CTGCAGGAAGCTGCCTGCTCCTGTGGCCATGTCAAGCAATCTTTCTTTCAACTGCAACT
GTGTGTAAGAGCTTAGTCTGAGAAGAAATGTTCAAGAAGCTCACTGTGGCTGTACCTGCCC
G

Sequence 2225

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATGATTAGTTAAATAT
AAGACTCCGTAATTTTACAATTTTAAACAATAATTTATTTCTTCAAGCTTGTTAGTTTG
GGATTGTATTTAACTACAGTGTGTGACTTAGAAAAATGATAATGCTGCTTTATGGAAAAT
GGATTATAGGTGGGTAAGACTTCATTGCAAAAATTTGTGTAATACCATCAGTGTAGGAAC
CCAGTTGAAGTCTAGAAGACAGATGATAGTATCTTAGACTAGGTTGGTATTTGAATAGAT
ATTGGTAATATCAGTAGAATTTAATAATACATTAGAAAAGAAAGAAATCAGAGAAGATTCT
TTTATTTTCACTTGATACTTGTGTGTTACTTTCAATGAGATAAGAAAAGACAGGCAAAGG
AGAACGTTCAAGGGGCAGGGGATGAGAAGAAAACAAGATTTTATGTTGGA

Sequence 2226

AGGTACCCAGCCCCTCCCCTTCTGAGATCTTTCCTGTACACACTCTTCCCCAGCTCTG
CACATTCTGACACTCACCACACCAGCACAGCAGAATCTCAAAAAAAGCCACAGCAGAGG
GCTCCGCTGGTAGAGTTGAAAATTTTGGCAAGAGGAAGCCACTCCTCCAGGCCTGGGTCT
CACCTCGGAGACACATCCAGTCTCAGCTCAGCCAGGCGCTGGAAGTGGGTCAGCCAAGC
ACAGACTTCATCCTGTGAAGCCAATGAATGCCACGGCCACCAAGGTTGCTAACTGCAGCT
TGGAAGTGGCACCATCATCAGTGAGAACTTGAACAATGAGGTCATGATGAAGAAATACA
GCCCCTCGGACCCCTGCATTGCA

Sequence 2227

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGGGCAG

Table 1

CAGGATGTGCTTAATACCTCCAGCAACCAGTTGTGACAATACATGCAAAGAGTGCAAAGT
CTTGTCACGACGGATGTTCTTTTTTTTTTTTTTTGAGAAAGCCTTGCTCTGTCAACCCAG
GCTGGAGTGTGGCAGATNCTGGGTGAAGAGCAAGACTCCGTNTCAAAAAACAAAAGAA
AAGGAAAAGTCCAGTCCTTGCTTCAAATTACTTCCAG

Sequence 2233

NCCGGCCGCCCCGGGCAGGTACNTTATGACCCAACATTTACCTCAAAGCTNTNAATGACC
TTTGCGGGGAAGTGTCCCAAGACAACCTNAAAGAGACAGCACAACATTTGCAGCTGTTT
CTCTTTCAGCCCAAGGTCGCAAAGGATATAAGAAGCCAATGCAGCTTGGANGGAGAAAGG
GATTCCTGTAAATCACTCACTATGATTTCCACAGCAGGCAAGTGGATCCCTAAAGAAA
GAAGGCTTATAGAGTTCCTCAAAGAGCTCAGAACTTCAACAATGATTCTATTACATA
GGCATTCTGTCTTCAAATTTAGCTTTAAGAGTCTGAGGAAGTACCTCGAGCGGCCGC
CCGGGCAGGTACTGGAAAACCTCCATCTTGGCTCCAGAGCTCTAGGAACTCTTCATCAC
AACTAGGATT

Sequence 2234

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGACCTCTTAGGGA
TCTAAGGAAAAGATTCTGGACCAGAATGGGCTAGGCTTGAAGTGGATCTTCCAAAAG
AATAGTGAATAGTTTTATCTTTCTAAAAGATGGATTGAATGGAATCTTCCATTTGTA
AGTAAGTCTTGTAAAGTTAATTAATTTGTAACATCTTTGAGAATTTACCACATGCCA
CTCCTTGAGCTGGGTGCTTACTATGTGTTTATTATTTAACCCTCACAACAACCTCAACA
CCCTCATGAAGTAGGTCTTATTAGGATCCCTGTTTTGAAGATGAAGTGAAGGCTCATGTT
AGCCCAAGTTCAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
TGTCAGAATGATGTTGTTTATTATGAGGCTGATATTCTT

Sequence 2235

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTTTTGAGACAGGATCTTACTTTGTTGCCAGGCTGGAGTGCAGTGTACGATCACAG
CTTGCTGCAGTCTCAAGCTTCCANACTCAAGCGATCCTCCACTTCAGCCTCCAGNAGT
TGCTTCTCATTTTTCTGNTCCTTNAACCTTTCCCTCTCCACTAGCTGGTTTCCCTCAC
AGGACCAACACNCATGTGCAGTATTTGCTTCCACCTCTTANAGATTTNTCAACTACAAGG
ACTTAGGCAAGGTTTCCCTTTTGAAGTGAAGGCTTGTAGAAACGTGACAACCCGCTTCC
CTAACACTCATGTACAGCGGTAGCGGACCGTATTCTGGGACAAATGGGAAGTCAAGACA
TTCCCCCGCGTTACCTGCCCCGGNCGGC

Sequence 2236

CTATCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGTGATATC
CACATATTTTTGAGAAAAATCCCAAGCCAGGCGAATGTGGATTGGAATAAGACATAGG
CAGTGTATACCACCATAGCAATAATGGTTAGTAAGATGGTGTAAACATAGATCGCTCCC
AGGGGCTCTAAAACAGCACAGCAGCTAATGATTGGTATTGATAGTAGAGCCAGGAGAAA
TATTCCTTCACACGCCTCAAATCCATGGTTGGCTCCTTCAAGCTGCAGTAAGTTTGTCTT
AAGAAAGTCCAGGTCTGGTTCTTCAAGCCTTGCTCCTTCGCGAAATGATCCTGTGTGGGT
AGTTCTCCTCTCTGGGTGCTGTTTCTCATCTCCAGTTGGGTGTATCTCCTGCGGCT
TAGGTGAGCGCTGAGGCTTTGGCTCCTCC

Sequence 2237

AGGTACGCGGGGAGTCTTGACACCCTAGATCCCAAGATCTCCAAGGATTTTGGTGGGCAT
ACCCACTCCAGCACACAGGAAAGCCATGGAGGGTTTCAATGGAATCTTCCCTTCTTTC
CTTGAACAGCTTCTTGGGCAGGGAAGCCCCCTGGGTTCTTGTNNCCTTATTGAATCCCAA
GAAGGGCCCCGCCCTTNTGGCCCCCAAGGGAATCGGGGGGAAACCCCTTTGCCATTG
AAAGCCATTCAAGCCANGCTTTTAAAAAAGGGAAAAAAATTGNCCANGGTTGAAAAAGAA
CCCCANGGGGGTTTTANGCCCCAGAACAGGGGGCCACCCAAAAAGCCCAANGGGAAAG
GCCAGGAANGAATTCCTCAAGCCCCNTTNTTGGGGAAAAAAAGGGCCCTTAAGGAAC
CGGGGAAGNCAAAAAAAGGCNTTGTNGGGGGGGGGGAACCTTCGGGGAAAAA

Table 1

AAACCTTAGGGGAAAAAAGAATTGGCCAAGGTTTCNGGAAAAAGAATTTCTTANGGAA
AAAAGGCCGNTGGGGGTTAAAAANGGGAAGGCCCGTTCCCATTTGGAACCGGTTTTTAA
AGAACCGGTTTCCCTTTTGACCTTTCAAGTTANCCCTTGGCCCCNGG

Sequence 2238

ACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCG
GGGGCAGTGGGAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGLCTCGGCGCTCACCTAAGC
CGCAGGGAGATACACCCAACCGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAAC
CCACACAGGATCATTTCCGGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGG
ACAAACTTACTGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTT
CTCCTGGCTCTACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGA
GCGATCTATGTTTAAACCATCTTACTAACCATTATTGCTATGGGTGGTATACACTGCCT
ATGCTTTTATTCCAATCCACATTCGCCTGGCTTGGGA

Sequence 2239

CCGCGGTGGCCGCCTACCTCGGCCTCCCAAAGTGCCGGGACTACAGGCATGAGCCACTGC
GCGCAGCCCCACTTGCCCAATTCTTGACCATCATTTATTGAGCTAAATCCAAAAAGGAAA
CTCTACCACTGACTCTTTTCTTTCTCATGGCCTCCAAAATGAATCCTAGGTTTTTCCAGC
AGGGTAAATTCAAAAGGACTCAGGTTGGAAATTGACTTCTTGGTTAAAAAAGGTA
TAAACAGAAGGTCCTTTTGTAAATGAGGTTTATTTTCAAGGCTACTCAGTCCTAAAAGC
CTGCATATTTACTTTTTTCTTCTCCAGCCCGGTACCT

Sequence 2240

NTGGCGCCGCCCGGGCAGGTACGCGGGGTTTGTAGATGGAAGGAAGAACTTNTGTGCT
TAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCTATACGGCA
ACCTCCTTTGCCAGGAATTTTATAAACATCCTGCAGGAAAATGAGTCTATATGTCAGA
ATACACATTTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAA
AATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGGAGGTGGAGCCTTCAG
AAGGTAATTAATGCCCTTGTGAAGAGAGGCCANAGAGCTTGCGCACCTTCTCCTACCAT
GTGAGGAGCCAAGAAGCCGGCTGTNTGCAACCTGNAAGAGGACCCTNACTAGAAGCTAGC
CATACTGGCATCCTCATCTTGGCTTTCC

Sequence 2241

GGCCGCCCCGGCAGGTCTCGGGAGATCAGGACTCTTACAGCCAGTCATTGAAGTCTCCT
TTAAATGAGATGTCTGATGATGATGACNATGATGATAGCAGTACTAAGGACACATTTGG
GAGTATTTAATCAGGTGTGGCTATCCGAGAAATCAACTTTGGGGGAAATGTAAATTTCTG
AGCTCTCTGTTTNGTTCTAGCCATGAATTTGCCTGACAACTTGTAACTATGTGCCTCA
ATATATCCATAGAAAGTAGGTCCCCCTGCCTTCTCCCACTCCTCACACTCTTCTACAGG
GATAGGCTTTTGCAATATATCAGATAAATTTTTGTTTCTTGTATTTTTAGGTTATT
TTCTTGGAAGGTTGGGAAAAGATGTTTGTTTTAAACAGATCATGTACCTC

Sequence 2242

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTCTTAAGTATCAATGAGTTAAT
TTTAAAGGTAATAAACTGTAACCTGTTTNTTCAAACTGCTTTTAAATGTTGCTAATTT
CTATTCCTGCACACTAACTGAACAAGGATGCTGGCAATGATAACTGTAAGACAGAGAAAT
GACATGATTCTGAGCTGCATTTTANAAAGATTACTTTGGCAGCCAGGCNTTATACTGAT
TAGATGACAGAAAGACCAGAGAANCNCAAAAGATAACGGATGGGTCTTCGGNTTAATACC
GGGGTGACNAAATAATNTGTACAACAACCCCGTGACACAAGTTTACTTATGTAATGAA
CCTTCACACNCNCCCCGGAACCTAAAATAAAAGTTAAAAAAGGAAGATGGAA
AGACCAGAGGAGGGAGGC

Sequence 2243

GGCGAATTGTTTCCNCCGNGGTNGCGGCCGCCCGGGCAGGTACNNTGATTAGTTAAATN
TAAGACTCCGTANTTTTTACAATTTTACAATAATTTTATTCTTCAAGCTTGTTAGTTT
GGGATTGTATTAACACTACAGTGTGTGACTTAGAAAATGATAATGCTGCTTTATGGAAA

Table 1

TGGATTATAGGTGGGTAAGACTTCATTGCAAAAATTGTGTAATACCATCAGTGTTAGGAA
CCCAGTTGAAGTCTAGAAGACAGATGATAGTATCTTAGACTAGGTTGGTATTTGAATAGA
TATTGGTAATATCAGTAGAATTTAATAATACATTAGTAAGAAAGAAATCAGAGAAGATTC
TTTTATTTTCACTTGATACTTGTGTTGTTACTTTCAATGAGATAAGAAAGACAGGCCAAAG
GAGAACGTTCCAGGGGCAGGGGATGAGAAGAAAACAAGAATTTTATGT

Sequence 2244

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTT
TTTTTTTTTTGAGGCAGGAGGATCACTTGAACCTGGTAGGCCAAGGCTGTAGGGACCTGA
GATTATACCACTGCACTCCAGCCTGAGCAACAGAGGGAGACTCTGTCTCAAAAAAGAAA
AGAAAACAAAACAAAACAGAAAACCTAGAGTTTAAATCACACTTAATAAAGACTAAATAC
ATTTCTCTCAAAATCAGGAAAAATATATGGTTGTTACTTCTTTATTCAACTTTGTATTTG
TGGTCATGGCCAAATGCAATATGACATGAAAGGAAATAATATATATAAGAAAGTAGTAA
ACAATATTTATTTATAGACTACATGAGCATGTACCT

Sequence 2245

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGATATTTGTGA
AGTATCTCCTGGACCCCACTTGAATATGATCGTTGGAGCCAATGGAACAGGGAAGTCGAG
CATTGTGTGTGCCATTTGCCTTGGTTTAGCTGGAAAACCTGCTTTCATGGGACGAGCAGA
TAAGGTTGGGTTTTTTGTGAAGAGAGGATGTTCTAGAAGGCATGGTTGAAATTGAATTGT
TCAGGGCTTCTGGAAATCTGTAATCACCCGTGAGATTGATGTGGCAAAAAATCAGTCCT
TTTGGTTTCATCAACAAAAAATCTACAACCCAGAAAATAGTGAAGAGAAAGTTGCAGCCT
TAAATATTCAAGTGGGGAATCTTTGCCAGTTTCTCCCTCAGGACAAAGTTGGAGAATTTG
CTAAACTCAGCAAAATTGAACCTCTCGAAGCCACTGAAAAGTCAATTGGTCCCCCAGAAA
T

Sequence 2246

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGAACAAAACCCACACTATCTCTGAGG
TGTGCTTGTAGGTTTTTTGTTTGAACATTTGCCTTACTGCACTCCTGCCTTGGCAGAGAG
CAAGACTCCATCAAAAAAAAAAATGTAATTTAAAAGATTAAAAATTAAAGATAGATTTTTA
CAAATGTATATATCTACCATTATAGTATCATACAGAATGGTTTTACTGCCGTGAAGTTTC
TCTGTGCTCTGTGTATCCATCTCTTCTTCCCTTGGTCCATGGCAACCACTGATCTTTC
TACTGATCCCATAGTTTCACCGTTTCCAGAACGTCATATAATTGGAATCGAACAGTATAT
AGACTTTTTCGGATTGGCTTCTTCTTTTAGCAATATGCATTTAAGTTTCTCCATGTATTT
TTTTGTGGCTTGATAGTTCATCTCCTGTTAGCAGTGAA

Sequence 2247

NGCCGAGGTACTTCCGAAGATGGGCTTGTATCTGGTTTCGGACGGACTGTTAATGACAAT
TTGATCGACGGGAATTGCACACCCCAAGATCCACCACAAAAGAAAAGGTTACAAATTTA
ACAATTTATAGTCCTTTTAAATAGATTTCTTTTNTTTNTTCATAAATACTAC

Sequence 2248

CGACTNCTTAGGGCGAATTGGAGCTCACCGCGGTGGCGGCTAACCTGGGTCTTCACTG
CATTTTCCTTTTGAAGCTGCTGATGCTTCATGGCAAGGGTTCCCGATCCTGGGGCAGAGG
CGGCCTCTGGATCATAGGCACAGACCAGGGCTCCTGCCAGAGCTGTCAGGAAGAGGAGAG
TCATGAACCTCATGCTTCTGTGTGCTGGAGTGGGTATGCCACCAATCCTTGGAGATCTT
GGGATCTAGGGTGTCCCGCTACGCGGGGACCTCATTCATTTCTACCGGTCTCTAGTAGT
GCAGCTTCGGCTGGTGTATCGGTGTCTTCTCCGCTGCCGCCCCCGCAAGGCTTCGCC
GTCATCGAGGCCATTTCCAGCGACTTGTGCGACGCTTTTCTATATACTTCGTTCCCCGCC
AACCGCAACCATTGACGCCATGTCGGGTTATTCGAGTGACCGAGACCGCGGCCGCTCTAG
AAC

Sequence 2249

GTCCCGGCCGCCCGGGCAGGTACNTATTGTGTCCACTGTAAAGGTAAATGATTTNTTTTT
TATATTGCATCAAACTTGAACATCAAGGCATCCAAAACACTAAGAATTCTATCATCACA

Table 1

AAAATAATTCGTCITTTCTAGGTTATGAAGAGATAATTATTTGTCTGGTAAGCATTITAT
AAACCCACTCATTTTATATTTAGAAAAATCCTAAATGTGTGGTGACTGCTTTGTAGTGAA
CTTTCATATACTATAAACTAGTTGTGAGATAACATTCTGGTAGCTCAGTTAATAAAACAA
TTTCAGAATTAAGAAATTTCTATGCAAGGTTTACTTCTCAGATGAACAGTAGGACTTT
GTAGTTTATTTCCACTAAGTAAAAAAGAAGTGTGTTTTAACTGTAGGAGAATTTAA
TAAATCAGCAAGGGTATTTTAGCTAATAGAATAAA

Sequence 2250

CTACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGCGGGGACCTCAGAG
CTGAGCTGGGCATGAGTAGATGCTCAGTAAGTGGTGCACAGGGTTGGTCCCTATGGTGGA
GGCCCCCTAACACCGCCCAACCCCCCTCCATGTTCTCACAGCTCCACGCACTGAGCACGG
GCATGAAGGCCATGATGTCAGAATTCTGGCACCCAGGGAGCTGAGATGTGCCGCAGGGCC
TGTGGCGGACATGGCTACTCAAAGCTGAGTGGCCTGCCATCACTGGTCACCAAATTGTG
GCCTCCTGTACCTGCCCCG

Sequence 2251

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGCCTTCTNGGGAAGTGCTGGGAA
CGCAACTTAAGGTGTTTGTAGACTGCCCCCTTAGAGCCTGAAATGCCACAATTTAAG
CTCTAAGCCTTTTGTCTCTGAGTGTCTCTANAAAAGATAACATCTTCAACCTTTTG
GTTTTCAGGGATTCTNTGCCAGTAGCCCTGGGGGTGAAAGGAGGTGAGCAAAAGGGACTTG
CCGGATGTCCGAGTAGGAANAANATTGCTNTAAGGAGTCCAATCCAAACCTCACTCATT
CACAATTTTACCGGAGGCTCCTNTTGTCTNTCCCCAGG

Sequence 2252

TNGGGCGAATTGTTNCTCCACCGCGGTGGCCCCGCCGGGCAGGTACACACAAAGACAAAC
CTGAACCTTAATTTCANGGAAAACCTAAACCATGCACAAATAATTGGTGAGCCTTCATT
CCCTGACTTCAAGTTTCCATGTGAGGACTCATGCTCTCTCCACTTTCTTCTGGGAGGAG
GGAAGATTACCTAATGGGTAAATTTGGGCAAAGCACATTGAGTGTGCTTGTGCTCT
GAGTCTCTTTGCAACATGTGTCTGCCACAGTGACATGAGTTGCGTTGACTGTCATGT
CTGCAGGAAGCTGCCTGCTCCTGTGGCCATCCCGGTACCTN

Sequence 2253

GGAGGCTATGCAGATATATTCTTTCTCTTTAAAGTTTTGCCACCAGTTTTAGAATTCA
TCAGTAAATCTTGTCTACAGTAATTATTACTATTTGCTATTCTAATGGGAATTTGTATA
TCTCCATCCCTTCTAATATATTTAACAACCTGAATTCTATAAACAAGATTTGTTCTTCTC
CACATTATTTATTTATCAATACAGACACATACTTTGGGGGTTATAATCCAATACTATTG
TTATTTATTATGTNGTTCATATTGTTCTAGCTTTGGCTACTGGGATCTTTTATAAGTGTN
TTCTGTGNCCTTTGGACATGCCCCATTTTTTCTTTTAAAGCACATCTTACTTTCTGAG
ACTACAAGATTGTCCAGGTTCTCATCTTGTGTTTTCCCTTCCCTAGCCTTGGAATGAGCT
GNTTTTCCAATGATCTCTAGTTCTTTATTAGAAAATGGTGGCCAACATGGTGAAACCCC
ATCTACTAAAAATACCAAAA

Sequence 2254

CTATAGGGCGAATNGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTCTTCTAATTGATC
ATATCTGCTTATTTTCTCTGGATTAAGGATCAAGGAGATAGTATATTAGATGATTTGAT
AAATTTCCAATGCTTTGCAAAGTAGTTGAACAACTTTTCTTTGTGATGCTAGGTGGCAC
TACTAGTCAAGACTTGGTATTTTCATAGCTGGCTTTCTTATTCTGAAGGTTGTAAAAAGAC
ATATGAAGTAATATTTAACATTGAAAACATGATAATCAATTGATTATCTATGAATTGTC
CTAAACGTTTCAAGTAAAGTTTCTTTAAAGTTAAATCTTTCAAGTGAAGGAAATTATA
AAGTCACATGTAAACACCAAAAATAAGAGGAATAGAGCAATAGGATATTTTGGCTTTATA
ATTCATTTAAAAATTAAGGTGCATTTATTTTTTGGCAGCTGGCCATAAAGCTTCAATG
TCCAGTAAGCAATTGCTATCTATGATTCATGAGATCATGGGGT

Sequence 2255

CCGCGGTGGCGGCCGAGGTACGCGGGGGACANGGCCATCTCGCTATAGGAAAGGAAAGTG

Table 1

GAACAGCATTTCATCCTCAACATTTTTACGAAGACAAAATGAAGACTGGAGTAGAAGACTG
ATCAGTGCAGGTGTAGCATAAAAGTGTAATCCTGGAAGATGTGGTGTGAGAAAGCATTAT
CANCAATNATGCNTNTTNCCTCCCAAACCATGGGGGGTTTCTCACAGCTTACACCAA
AGGGCATCACTATCCCTCAAAGAGAGAAACCTGGACACATGTACCTTGCCCC

Sequence 2256

CCGCGGTGGCGGCCGAGGTACACACTTGTGTGCATTCTGTTGGGTATATAACAAGTATG
AAATTGCTGGGTCTTAAATATTTATATATTAACCTCATTAAATGCTGCCTAAGAATTTT
TCAAGCGGTGTGTCTATTTTACCTTCACCAGTTCTAGTTGTTCCATATCCTTGCTGTCAC
TTGGCATTAACTGAATTTTTTATTTGACCAGACTGGTCTGTGTGTCATAGTATCCCAT
TGTCATTTTAAGTTGCATGCCTTTGATGAAGACATTTTCTGATGCTTAATTGGCTCTTTG
AATATATCCTGTAAGTATTTGTAGGGAGNTTTTATATATATTCTGGATATAANTNTTTT
TATNTGGACATAAATATTTGCGAGATTATCTNCTCCCACTTTTAACTTCCCTTTTTTC

Sequence 2257

GATCCTATATGGCGNNTAGGGGCTCCACCCGCGGTGGNGGCCGCCCGGGCAGGTACGCGG
GGGGAGCGGCCAACATGGCGGAACGCAGGAGACACAAGAAGCGGATCCAGGAAGTTGGTT
GAACCACCTAAAGAAGAGAAGGCTGTGGCCAAGTATNTTCGATTCAACTGTCCAACAAAG
TCCACCAATATGATGGGNCACCNGGTNTGATTATTTTATTTGCTTTCAAAAAAGCAGNTG
NGACTTGTCTTTTTGGAATTCAAAAAGATGGGGNCAAAAGGCTCAAAATATAATGGTAGT
AGNGAAGCCTTTTATTTTACCAAACCAAGGGGGAGGTCCTGTTGGGTTTGGACTTACCT
GGCAAACCAAGGCCTTTTAAAAGGAAAGGCAGTTTTTTTTTTTACCNGGAGGCNCCTTA
AAAAAGTTAAANTGNAAAAAATTGGAANATTAATTGGTTATNTATGGACCATATATNGA
GNACATATANTNCATNTAATTNAANAAANAAAGGGTACCCCTTTCGGGTCNCCGCNTTNC
TAANGAAAACCTANNTTNGGGGGATTNCCCCCN

Sequence 2258

CCGGGCAGGTACCCGGGAGGCTCGCATGTGTGGGTGCATGCCGTGGCAGGAGAAGGCTTC
CGAAGAGCCATGCATGCGTCCTCTGGCTGCTCCAGGTGTAAAAAATGCCAGGGAGGGGAC
AATGATGAGTCCTAGGCAGGAAAGGTCTCTGGAGAGAGGAAATGGCACACGCGCAAGCA
CGGAGGCATGAGGGGCCAGGGTCTGAGGACACTGGGCCGGGACAGATCAGACTCCCCC
GCGTACCT

Sequence 2259

CCGCGGTGGCGGCCGCCCGGGCAGGTACATCTTTAGAGAGTAGAGATACATCTGCATATA
AAAAAAAATCTGCCGTAAGTGATAGAGTTGAAAAATAATGTCCTACATACCAGAATGTTT
TTCTGAATTAGGCATCATGTAGGTATTCAGCATTCTTTCCATTTCCAAATTGCTCCCACT
CCCTGTTTTTTCATCATCCCCCTTTTTCTCATTAGCTCATTTGGAATAAAAGATTTT
TATTTTATTTTCATTTTTTTTTTCTGCAGAAGAAGCCACATATGTATGGAGATTTAGGC
AATGATTTCTCAAGGAAAAAATGTTTTAAAGTACAGCATGGCTGGTGGTTTCAAAAAAC
GTAGTCATTCTTCTCACTGCAACCAATGTAAGATAAGCAGGGTAGATCTGTTATTTCCAA
ATTAAAGGTGGATTAAGATATATGGAGAGAGAACATGGCATGTGAGGTTTATAGGGCTAG
AAACTG

Sequence 2260

GCGAATTGGAGCTCCCCGCGGTGGCTNAAACATCTTTTCTTCTTAGTCCCAGGTTGTTT
TCATTCGTGGCTGGATCACACCAGCAAGAGGATTTTAAAGGACAACCTCTGGGGCCGT
CCAACACTGAAACCGCCTGACCGCTGCTGTCTTTGTGCTTGCAGAAAATCACGTGGCCCC
GGAGAGGGTCAGCGANGGGCCTCCACTGTCTGAGTCCGCTCCTGGCAACGCCTGCTCTCT
GCACTCAGAGGCCCCGGTCCCGCAAGCTGCCACGTTGCTCAGAAAGTTCTGGCAGGGGGAG
CCTGAAACCCCTGTCTGCTGGCGACACTCCCGGAGCAGCAGGAAATCTCTACATTTTATT
TTTTTTCTTAACAGACAAAAAGTATTTGACTCCAGAATGATTTCCAGGAATTACAGTATGA
GAACCTAGTCTTTGAGATTTTTATTTTCTTCTTAAAAAATAAAAAATGAAAT

Sequence 2261

Table 1

CCGCGGTGGCGGCCGAGGTACGCTTTGACGACACTCTCAGACATGCTGTGCAACTTAACG
TCACTGCCACCCGGCAGCTCTTGCTTATGGCTAGTCAGATGCCAAAGCTGGAAGCCTTTA
TACATATCTCTACTGCCTATCCAAATTGTAACCTGAAGCACATCGATGAAGTTATCTATT
CCNGCCCTGGNGGACCCAAAAAATCATNGATTCCCTTGAGTGGTTAGACGATGCTATT
ATTGACGAGATTACACCCAAGCTGATCAGAGATTGGCCCAATATTTATACCTACACCAAG
GCCTTGGGAGAAATGGTGGTGCAGCAAGAGAGCAGGAACCTGAACATTGCCATCATAAGG
CCCTCCATTGTGGGAGCAACTTGGCAGGAGCCTTTCCAGGTTGGGTTGATAATATAAAT
GGACCTAATGGAATCATTATTGCGACTGGGAAAGGGTTTCTTCGGGCCATAAAAAGCTAC
TCCAATG

Sequence 2262

CGAGGTACGCGGGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCT
CCTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAAATGAGTCTATATGTCAGAATAC
ACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAAAATGA
CAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGGAGGTGGAGCCTTCAGAAGGT
AATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACCTTCTTCCTGCCATGTGAG
GAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACCCTCACTAGAAGCTAGCCATAC
TGGCATCCTCATCTTGCTTTCCAACCTCCAGAAGTGTGAGAAGTATATGTTTGTGGTTT
AGTCAATGGTCTATGGTAATTTTTATAGCAGTCCAGCCAAGACAGTGCCTCATTTAC
TACATACCATTATATTATATATAGGCTCCTTTCAGAAACCCATGTTCAAATAAGAGAT
AAGATACTGAAACACATAACACCTTCACTAGTTTTAGTATACAAATATTGAGAAATAGT
TTGGTATTAATCTCATNCAAGAAATGCAGATTCATGTTGGTTCTAATTTTTATTATA
TAAATGACAAAATGNAGAACTTAACACCATCCTAGATTTTAGCTGCCCCNG

Sequence 2263

CCGCGGTGGCGGCCGAGGTACCTTAGATTTCTATGGGACATCGTTTTAAAACTATTGTTT
ACGCGAGAGCCTTGCTAATTTCCATAAAATTTGTGGATACATTTTTCTCCCATGTATAAT
TTTCTACCTTCTATTTAAAAAGAAAAAAGTCAGTGTAGTATTTACATATTTTACC
CTATAAGGAGCTAACATAACTTTTGAATTTAGTGTATTTCATAAAATTAGGTTAGCAGTTT
ATTAACCTTTTGTATTTGCTCTGGCAATGTTAATATCTCATAAGCTATACACACCTCGA
AGCCATCAATGACAACCTTTTCTGCTGAATAGAACAGTGATTGATGTCATGAAGACAAT
TTTATCTCCTTTTGCCTTCCATAATTTGTACCTGCCCG

Sequence 2264

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTNNNTTTTTT
TTTTTTTTTTTTTGGGAATCTAAACCAACAAACATGATAATTCAGAAGAGATTA
ACTNGATTTTTTCTTCATCGGCAGCAGACTCTGACTTACCCACCTTTCCCACTATTC
TTTGAGTAAGGATTTGAATAATTTAAGCCTTCACATTNGGAATTTTATCTCTTTAATCT
TTGNAAATATTATGAGTAAAAATCAGGAAATGCCTCACTGGTNCCCTTGGTTTCTCAGAC
AACTCACTGATTTATGGTCTTGAGACCATAAACTCA

Sequence 2265

CCGCGGTGGCGGCCCGAGGTACAGGAGGGAACCAAGGCGCTACAGACTGTGTAATGAGTGT
CTTGCAAGATTTGGCATAGACAGCCTCCCCATTGACTTGGAAGCTGAACAACATCTTATG
TCCCCATCAGATGGAGATAAGGATTCCAGATGGCACTTGAGTGAAGATGGGAATAGATCC
TATGTGGAGATTGTAGAAGATGGGTCTGCTGATCTGGTCATCCAACAGGTTGATGATAGT
GAAGAAAAAAAAAAAAAAAAAAGGTACCTGCCCG

Sequence 2266

CGCCCGGGCAGGTACGCGGGATTGACATTGCAAGAAGCAAATGTTACCTCTAATAGCGTG
GTCCAAAATAATGTCTATTTACATTCTCAGAGCACTTTGTCAAGGTTATTCAGTTGAAGG
CTGTAACACTCTCAGGAGTTAATCAAGAGCAATGGCATCTATGTTTATTAGTGAAGGGAA
GACTTACTTGACCTACTGCATATCTGAGTTTACTGAGCTCAAACCTGGAATTTAGGAAGC
CAAAAAAAAAAAAAAGAAAAAGAAAGACAGTGTAGACAGAGGCAAGAAAGTAGAGTGAT

Table 1

TGCATTTGGGCATCTGAATGACCCATCTTGAATCACAGCTCAGTCACTGGCTGTATGCC
 TTGAGAAATGTTCTTCTCTGTTCTGAGCCGCTGGTTCTTATTTATGAGATAAATGAGGA
 ACTGTGCTGCACGCAGTTGGTTGGAGCCTGAAATGAGATAATGGATGTTGTCCTAGTTAG
 AAGATGAGTAATTTTAGGGCCGGATGTGTTTGGCTCACGCCTGTAATCCCACCAGTTTGG
 GAGGCCAAGGGTGGGCTGATCACAAGGTCAGGAGATCAAGACCCGTCCTGTTAACACGG
 GGAAACCCATTCTTTACCAAAAAATACAAAAATTAGCCANGNCTTGGTGGCGGGTTCCT
 GTAGTCCCAACTACTTAAGGAGCTGAGGCAGGAAAAATGGGTGTGAACCCCTGGGANGCCGG
 ACCTTGCCAGTGGNGCTGANATTGGCACCAANTGGCCTTCAACCCCTGGGCGANAGANACC
 AGGACTNTGTCTTCCAAAAAATAAAAAA

Sequence 2267

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGGAGGGAACCAGG
 CGCTACAGACTGTGTAATGAGTGTCTTGCAGAATTTGGCATAGACAGCCTCCCCATTGAC
 TTGGAAGCTGAACAACATCTTATGTCCCATCAGATGGAGATAAGGATTCCAGATGGCAC
 TTGAGTGAAGATGGGAATAGATCCTATGTGGGAGATTGTAGAAGATGGGTCTGCTGATCT
 GGTATCCAACAGGTTGATGATAGTGAAGAAAAAATAAAAAAANGTNCCTGCC
 CG

Sequence 2268

CGAGGTACGCGGGGGAGCGGTGAGTGATCCTTTCAGCAAAGTCAGTCTGGGCAGGAGAC
 GGCTTCAGGAATACTGTACGCTTTACTGGATTCCACCATCGCTTTCAGGACTGTTTAGG
 CCCTGGGCCCTTGAAGGGTTGCGTGCCTCTTGTCTCCATTATACCTCAAGAACTTTGT
 TCATGTTAATTTTTTTCACTCTATCATATGGAATTGAGCAAAAAAATAAAAAA
 AAGGTACCTGCCCCG

Sequence 2269

CCGCGGTGGCGGCCCGAGGTACCCTGCTGAAAGATTATTTCTAACAGGCTTGTAGAGAAA
 CGTCGGTTCATGTAAATTAGAAATTATGGGGCCACTTTGCCATTCTTCACACCTGCAATG
 AACAGGTGTTTATCTGCAGTTCTGACTTATCTCTTGAACCTCCATTGTCATGTTATAGTGG
 GATGCAGCTGATGCCCTGTCCAGATCTTCTTCAGGCCACTACATCTATATATGCATTAT
 ATTCCAGTGGCTGTGAGTGTGGCTGTTGGTTGACAGAGGAGCTGCATCCTCCTGGAGGA
 AACTGCACTCAGCTGATGAAAGCCACCTGGTCTCGGAGGTGAAGCATCTTCCAAATGACA
 GCCTGAGTCAATGACTGATGAATATGACTTCATTGCCTCATGACAGGACCTACTCTGGG
 GTATAGATCATGCTTCTAAGCTCCTCCTGGGGTCTGCTGAGGCTCAATGCCAGCTGAAA
 CCATACCTTGCTCACATACTTTCCCTTCTCTTCTTCTTCCCTTGCTTCCTTAGAGAT
 TCCTCCTGCAATGGCTTCCTCAAAAAGCATTTTCATAAGCAACCTCATGTCAGCCTCTG
 CTTTCACAGAAGCCAATCTGANGTTAAACAAGCTTGTTAACTTAGCATGTCCAACATAAA
 ATTCTTGGTTTCTTCTCATCCCTGCCC

Sequence 2270

ACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATG
 GAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTAC
 TTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATAATTAACATCCTGCAGGA
 AATGCAGTGAAGTAGAAGAGACAGGGATATCCAGAAGGTTATGCAAAACATCAAGAGA
 AGATGAGAGGTCAGAGATGGGAAGAAACAAGAACTTTGACATGCTTGGTGTCTTGCCCA
 AGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAAC
 AGTAGAAAAACATATGAAGAGAAAAACATTAATAATGACAAGGAAGTTAATGGAAGTCA
 GCAATGTGATGGTGTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAG
 AGGCCAGAGAGCTTGCGCACCTTCTCCTGCCATGTGAGGAGCCAAGAAG

Sequence 2271

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATGATTTT
 TTATTTTAAATAATCTGGAAGTAATGGGAACCTTAGTTTTCTGAACTCCAACCAGAA
 CCAATTTGGTTAGATGAGGCCGGGCGCGGTGGCTCACGCCTGTAATCCGGCACCTTGGG

Table 1

AGGCCGAGGTGGGTGGATCACCTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACATGGT
GAAACCCCATCTCTACTAAAAATACAAAATTAGCCAGGTGTGGTGGCGCCTGGTTGAGG
CATGAGAATCGCTTGAACCCAGGAGGTGGAGGTTGCAGTGAGCCAAGATCATGCCTACTG
CACTCCAGCCTGGGCAACAAAGTGGGACTNTGTCTTAAAAAAAAAAAAANAATAATCGGT
TAGATGANGAAAGCATGTATATTTCTATATACCAAAAAAC

Sequence 2272

CTATAGGGCGAATTGGAGCTCNC CGCGGTGGCGGCCGAGGTACGCGGGTGCCAGGTCTG
GCATCCTGCACTTGCTGCCCTCTGACACCTGGGAAGATGGCCGGCCCGTGACCTTCACC
CTTCTCTGTGGTTTGCTGGCAGCCACCTTGATCCAAGCCACCCTCAGTCCCAGTGCAGTT
CTCATCCTCGGCCCAAAAGTCATCAAAGAAAAGCTGACACAGGAGCTGAAGGACCACAAC
GCCACCAGCATCCTGCAGCAACTGCCGCTGCTCAGTGCCATGCGGGAAAAGCCAGCCGGA
GGCATCCCTGTGCTGGGCAGCCTGGTGAACACCGTCCTGAAGCACGTCATCTGGCTGAAG
GTCATCACAGCTAACATCCTCCAGCTGCAGGTTGAAGCCCTCGGCCAATGACCAGGAGCT
GCTAGTCAANATCCCCCTGGACATGGGTGGCTGGATTCAAAC

Sequence 2273

CCGCGGTGGCGGCCGAGGTACGCGGGGGCATTGTTGGAAGTTTACTCTGGTTAAAGGATA
GAGAAAAAATGGAAGAGGAGGGTAATCACAACAGTCTAGGCAAGAGATGATGGTAGTT
TGGAGACAGAAGGTGTGGCAGTGGACATGAAGATAAGTGGATGGATTTGAGAGAACTTG
GAGAGTGAAACTGCATGGATAGTGATGGATCAATGACAGTAGACTGGGATGAATGGAAGT
ACCTGCCCCG

Sequence 2274

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTTGAAANGTTAAAAATTTAAAAATTTAATAACTTGAATATACATCTG
CTTTGAAATAGGACATAAAGTCATACAGTATTTTACATAATTTCTTGCTTTTCAATAA
TAGTATGCAACTCATAAAGAAATAAAGATCTAAGGAGCNCNAAAGATNCATGTATGTATT
TAAAAGAAGCATTTCAAATAAACAGGAAAAAAATTA CTCTCTTATTT CATACCGTATCTA
TTGNCTTCATCATAACAGAAATCTATAATAAAGAACTAGAGCTNTCAGCACCTNTC
ATNTGCTGACACTGNGTTAAACACTNTACATCCATCACCTCCTNTAATC

Sequence 2275

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGCAGTGG
GAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGA
TACACCCAACCTGGGAGATGAGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGA
TCATTTGCGGAAGGAGCAAGGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTAC
TGCAGCTTGAAGGAGCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTC
TACTATCAATACCAAATCATTAGCTGCTGTGCTGTTTTAGAGCCCTGGGAGCGATCTATG
TTTAACACCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTCTTTATT
CCAATCCACATTGCGCTGGCTTGGGAATTTTCTCAA

Sequence 2276

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAGACGGGGCTGTAAT
CTGGTAACTGTATGTATTTTAGTTCTTCAGTCCCTGGGAAGGAGACAGGAGAAGGTGGGA
GGGAGGAAGGGGCCAGCTGAAATGGAAACAGATCCCTGATCCGGGGCGGTGAGTGAAC
CTTCTTGGTGTGCGAGAGCCTGTGCATTTAGAGGCAGCAAAAAAGTAAAAAAAAAAAA
AAAAATTGATCTTTGTTTAGATTAACAGACCCCTGACTATGAANNAAGGAAGGCATCCAGA
CCAGAAACCGAAAAATGTCTAGCAAATCCAAAAAGTGCAAAAAAGTGCATGACTCACTTG
GAGGACTTCCCAAGAACAGCTCGTTTAACC

Sequence 2277

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTGTTGC
AGTGAGCTCAAGTGTGGGTGTATCAGCTCAAAACACCATGTGATGCCAATCATCTCCAC
AGGAGCAATTTGTTTACCTTTTTTTCTGATGCTTTACTAACTTCATCTTTAGATTTAA

Table 1

ATCATTAGTAGATCCTAGAGGAGCCAGTTTCAGAAAATATAGATTCTAGTTCAGCACCAC
CCGTAGTTGTGCATTGAAATAATTATCATTATGATTATGTATCAGAGCTTCTGGTTTTCT
CATTCTTTATTCATTTATTCAACAACCACGTGACAAACACTGGAATTACAGGATGAAGAT
GAGATAATCCGCTCCTTGGCAGTGTTATACTATTATATAACCTGAAAAACAAACAGGTN
ATTTTCACACCNAAGTAATAGATATCATGACACATTTAAATAGG

Sequence 2278

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCATGAGAGACAAAGCTGAGAAGTGTGGTG
GAAAGGAAGAGAGAGCTGAGGCAGACGATGTAAGATCTGCTGTTACTTCTTGCTGTGTG
ACCTTGGGGTGAAGCAGCAAGAANGCCCTTGCTAGATGAGGCTNCTCAACTGTAGACTNC
CCAGCCTCCANAAGTGTGAAGNGAAGTGGGTGTGCCTGGGATCNNACACAGCTGCTAAAA
GAAGGNCTNAAGAGCCACAGATGTCTT

Sequence 2279

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAG
GAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGT
AGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTATAAACATCCTGCAGGAAAAAT
GCAGTGAAGTANAAGAGACAGGGATATCCAGAAAGTTATGCAAAACATCAAGAGAAGAT
GAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAAAA
AAAAAAAAAAAAAAAAAAGTACCTGCCCCG

Sequence 2280

CCGCGGTGGCGGCCGAGGTACGCGGGGGCATTGTTGGAAGTTTACTCTGGTTAAAGGATA
GAGAAAAAATGGAAAGGGGAGGGTAATCACAACAGTCTAGGCAAGAGATGATGGTAGTT
TGGAGACAGAAGGTGTGGCAGTGGACATGAAGATAAGTGGATGGATTTGAGAGAACTTG
GAGAGTGAAACTGCATGGATAGTGATGGATCAATGACAGTAGACTGGGATGAATGGAAGT
ACCTGCCCCG

Sequence 2281

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGATT
AGTTAAATATAAGACTCCGTAATTTTACAATTTTAAACAATAATTTATTTCTCAAGCT
TGTTAGTTTGGGATTGTATTAACACTACAGTGTGTGACTTAGAAAATGATAATGCTGCTT
TATGGAAAATGGATTATAGGTGGGTAAGACTTCATTGCAAAAATTGTGTAATACCATCAG
TGTTAGGAACCCAGTTGAAGTCTAAGAAGACAGATGTTAGTATCTTAGACTAGGTTGGTA
TTTGAATAGATATTGGTAATATCAGTAGAATTTAATAATACATTAGAAAGAAAGAAATCA
GAGAAGATTCTTTTATTTTCACTTGATACTTGTGTTGTTACTTTCAATGAGATAAGAAGG
ACAGGCAAAGGAGAAAGTTCGGGGGCAGGGGATGAGAAGAAAAACAAGAATTTATGTTGG
ACATGCTAANGTTAAACACCTGCTTAECTAG

Sequence 2282

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGATTGA
CATCCACACTACCTGATTTGATACACTAAGAAGGGCTTATCATTCTGTGGTACTCTTG
GCCAACAATGCAGTGTAACATTTATTCATTGAAACACATTAGGCAGAAATGCAGGACAT
TCTTCAAAATAGCTGTCCAATACTCTTCAAAAGTGCAGGTCCTGGAAGACAAAGAGATA
CTGAGGAACCATCACAGAGTGGGAGAGGACATAGAGTGATAAAAACTAACTGTGATGTGG
AATCCTACATTGGATCATGGACCAGAAAGACAGCACTGATGGGAAGACTGATGAAATCTG
AATAAGTCTGTAGTTTGGTTTAAAGAAGAATAATAACAATAATGGTTTAGCTGCTGG
CTCCTTAATAAAATCCCTANTTACTGTAATGTCTGAAAATGAACCCCTATGGTGGGC
TACTGTGACTGTTCACTGCATTTGAGAATAAAGAATAATTAAGGAAAAAATACTCTGTC
AGCCTAGGCAATATAGTGAGACTCTATCTGTACCT

Sequence 2283

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCNCGCCCGGGCAGGTACCAGGCAGGATGGAG
CAGGATGGTGTGAGATTCATCACACTACTCAGGATAGTGACAATCTAACCTTATGAA
TTGTTTATTTCTAAAGTTTTCCATTTAATATATTTGAAATGAAGTAGACCCTGTGTGTAG

Table 1

CTGAAACTTTGGAAAGGAAAACATGGATAAGGGGGACTACTAGAATACACTTCAATAAA
 ATAGCATTTTAAACAAATCCTAGTGCCGTAGAGTAGTTCTCCATCTAGCTGTCCATCTT
 TCAAACGTGGAGAGAGGTGAGATGAGGGAGAAATATGGTCAGAGAGGGGAGACAGGTGTG
 TGTGGTGTGGGTGTGCAGGTAGATACATAGCTCAGTGTTCACTGTGAGAGGTGAACAGAG
 AACATTCCAAGCAATGGGAGTGGCATGATACAAGGCACAAAGAAGTCAAACCTGAAAGGCA
 CCTTCAGGAAAAAGAAAGGAGTCTCTTGAATTCATACACAGAGATCGGCACTGGCAAGA
 AACAGGACTCTGGGGGAAAAATCAGGGCTTCCAAAAAAA

Sequence 2284

TATAGGGCGAATTGGAGCCTCCACCGCGGTGGCGGGCCCGGGCAGGTACTTAAACAGT
 TATAGTCACCATCACCTGCTTCAGAATGGTCTTTTAGATTTGTGTTTGTAAAGT
 TGTGGCACCAGGATGCAGAGAATCAGACTGGCCTGAGGTGAAGGAGCACACAGCCCTGA
 GGGCTTGGAAACCCTGGGTCCAGTTCCTCTTCACACCCCTTCCACTCTGAGTAGCACATC
 TCCCCAGGTGCCCATGGAACACCTGCTTTCATCCCAAATATCCGTCCACCTAGGCGGGGT
 GGTATGTTCTTACGTCTCTCTGACTTTGATGCCACTCATTCTATAGTTTAGCTGGTTTTT
 GTTCAAGATATTCTTGGTAGTAAGTACAAGTATGTTGCACATGTATTGGGGGAGGCGCT
 TCATTTTATTTAATACACATGTATTTCTCTTGCACAGGATTTTGTATGGTGTGGGAA
 TATCCTAAGTGGTAGCCTTCCAAAGTAGCAGTGAGTTGACATTGAGCTGCTTTAACTAT
 TCAGGCTACCTTTTATACTAAACCTTGAAGTCTAGAACTCTAATGTCTACCCCAAAAAAGT
 AAGTCTTTGATATTTTATACTTTTATGTACCTTGGCCCGGTCTAGAACTA

Sequence 2285

AGGTACCCAGACTCCAGTATGAAAACCTCTCTGGGCTGTGTCTATGATCTTCCCATGAGT
 AACTCATAGTCTTGATCCAGTGGAATCTGGCCTTCATTAGTCTCAGTGGCAAGTTGGTTA
 TGTGGAAGTCTCTGTTCACTCACTTGGGTGAATAACAGTAAAGACCTTTCTATTGTTT
 CACTTTACATTAGGCCATGAGTATTTGTGCTGTAGCTGCAGTTTGTGTTAGTTTCTAC
 CCCAGGTATCTCCTGCAGCATGCAGCTTCAGTCCTACCAGACCCTCAAACTTAAAGCG
 AACACTATTTCTAGGGAGGATTTTGCAGGAAATGGAGAAAGGGTTACACACAAAAAAGG
 TTAAACTACTCTATGCATGTTTCTGCAATGTGTTATCTCAAGAATTCATCTCTGTAGCCC
 ATCAGGGCAGGAGCTGGTCTCTCACCTGTTGATAATATCCATAAGGGAGGTTCTTCCCC
 ACAANTGTTTAGTCTTCCGACGCTGGTATAGCCTGACATGATGACATTCTACTTTCATGT
 TGGTCGTGCTGCAGGGAGAATTCTGTGAGTGTCCCAATANGCTGGGAATCACTTGCTAAG
 GGTGAACCCCA

Sequence 2286

CCGCGGTGGCGGCNCGAGGTACTTTTAGTAGAGATGGAGTTTCACCATGTAGTCCAGGCT
 GGTTTCAAACCTCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGTGCTAGGATT
 ACAGGTGTGAGCCACTGTGCCCAGCCAGAATATATCATTTCACTGGACTCTGCAGGTGCT
 TTGGATGATCAAGGAATAGGACATGGCTGTAGAAGTACGCGGGTGTGAGGAGGCATATT
 TTTAAAGAATCAAATATAATTTAGATAGGAAATGACAAACTCAGCAGACATATTATGAA
 GGAAATGAGACATACAGGAGAAGAGAATTAATGAATTGGTTGGAGGCTAGAACTTAATAC
 CCTCATTGTAGCCAAGAAGAGAGAGAGAGAAAAAAGGAAACATGAAGGGAATAAAGA
 AACATGTTAGTGGGATGAGAGTCTCACATATGATTCTGTAAAGTAGAACTGAAGGAAG
 GGACAATATTCAAAGTGAGATGACCAAGTACCTGCCCG

Sequence 2287

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACCATCCCCAAGG
 ACACGGAAGTATTTCTCATCCTGAGCACTGCTCTCCGTGACCCACACTACTTTGAAAAAC
 CAGACGCCTTCAATCCTGACCACTTTCTGGATGCCAATGGGGCACTGAAAAAGAAATGAAG
 CTTTTATCCCCTTCTCCTTAGGTAAGCTGGACCCACAGTTTCTTTCCAGACACCAGAGG
 GGCAGGTCTATCCTCAACTTTGAGAAAAAATGACAGGTCTTATTAATTGAGCACTT
 AATATATTCCAATTGCTTCACCTGCCTTATCCCCCTTCATCTTCACTACAACCTGTAAG
 GAGGCTTGAGAAAGAAGATGACATTCCAAAGGCACATCTGGGCAAGCAGGAACTTGGGC

Table 1

AAGTATTTTAACATCTTCTAAACCTCAGTGAATTCATTTTCTTAAAAAGAAAAAATCTT
GT

Sequence 2288

CTATAGGGCGAATTGCAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTCTGCTTTGATTTTCATTTTTATTTTTTAAGAAGAAAAATAAAATCTCAAAGACT
AAGTTCCTCACTGTAATTCCTGGAAATCATTCTGGAGTCAAATACTTTTGTCTGTTAAG
AAAAAAATAAAATGTAGANATTTCTGCTGCTCCGGGAGTGTGCCAGCAGACAGGGGT
TTTCAGGGCTCCCCNTGCCANAACTTTNTTGAAGCAAACGTGGGCAAGCTGCCCGGGA
CCCGGGCCTNTGAGTTGCAGAGAAGCAGGCTGTTGCCAGGAAGCGGACTCANACAGTGGA
GGCCCCCTCGCTTGACCCTTTCCGGGGCCACGTGATTTTNTGCAAAGCACAAAGACAGCAG
CGGTCAGGCGGTTTTAGTTGTTTGGACGGCCCCAAGGAGTTTGTCTTTTAAATCCTT

Sequence 2289

GNGGCGGCCCCGAGGCACTNTACTNTTTTTTTTTTTTTTTTTTTGGGATTTTATAGCTGAT
GAAATATGGTCCCATTTATCATCAGTTCTAACTTCGTGTTACTACTGTTGTTCTTAAGGT
CCTTAAAGTAAATTTAAGACTCAATCTAAGTGTGTCAAGTGTGATTACCATTTCTATTTA
NAAAGGCAGAATTTGTCTTAAAGATATTTGNCTAAAGTGTGTGTTAGTATTTGTCAAAA
TAAATGGAGGGAGGGAGTGGGTGAGCTGGGATAGAGGCAGGCAGAAAGCAACAGGACAGA
GAGTTNGANANAGAGAAAAGAAAAAAA

Sequence 2290

CCGCGGTGGCGGCCGCCCGGGCAGGTACTGCTAAAGAACTCTAGAACATACAGGGTGTAG
ACGGCAGTCTTCTTGGGGAAAAAGAGGCTTCAGGATTGCAAGATTTACGCTACTGTCTCT
CCTCGGAGCAGGATTCCATCTTTCCATGGCTGGGGCCCTTGACACATGTCACTGTACAC
TGCTCTTCTCGCTGGGATTTCCAAAAGACCTTGGCTCAAGGTGTCACTTTTGCAGAAAAG
CATTTACTGACTGTTGACTTGGCCAAATCCCTTGTGCTGTGTTTCTAGCACGGNGAGTT
GCATTTTTCACATGAATCATGCCTACCTTCTCTTGTTTTATAAGCTTCATGAAGGCAGG
TACCT

Sequence 2291

CCGCGGTGGCGGCCGCCCGGGCAGGTACCCGGGAGGCTCGCATGTGTGGGTGCATGCCGT
GGCAGGAGAAGGCTTCCGAAGAGCCATGCATGCGTCCTCTGGCTGCTCCAGGTGTAAAAA
ATGCCAGGGAGGGGACAATGATGAGTCCTAGGCAGGAAAGGTCCTCTGGAGAGAGGAAAT
GGCACACGCGCAAGCACGGAGGCATGAGGGGCCAGGGTCCTGGAGGACACTGGGGCCGGG
ACAGATCAGACTCCCCCGCGTACCT

Sequence 2292

NCGCCTGGGCAGGTACACACTTGTGTGCATTTCTGTTGGGTATATAACAAGTATGAAATT
GCTGGGTCTTAAAAATTTATATATTAACCTTCATTAATGCTGCCTAAGAATTTTCAAG
TGGTTGTGCTATTTTACCTTCACCAGTTCTAGTTGTTCCATATCCTTGCTGTCACTTGGC
ATTATCTGTATTTTTATTTTGACCAGACTGGTCTGTGTGTGCATAGTATCCCATTTGTCAT
TTAAGTTGCATGCCCTTGTATGAAGACATTTTCTGATGCTTAATTGGCTCTTTGAATATA
TTCTGTAAGTATTTGTAGGAAGTTTTTATATATTCTGGATATAAGTTTTTTATTGGAC
ATAAATATTGCAGATATCTTCTCCCACTTTAACTTCCCTTTTCTTTCTTAAATCATGAC
TTTCTTAATACAAAGTTCTTAATTTAATGTAGTCCAACCTTAGCAGACTTTTTCTTTATA
GTTAATGCTTATTTAAGTCTTGCTCAAGAAATTTTGTCAACTCCAGTGTCAATAAGAAA
CTCTCTTATGTTATAGAAGCTTGGTTTTTTTTTTTT

Sequence 2293

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTTATAAACATCCTGCAGGAAAA
TGAGTCTATATGTCAGAAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAA
GAGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGGTGTTT

0

Table 1

GGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCG
CACCTTCTTCTGCCATGTGAGGAGCCAAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGA
CCCTCACTAGAAGCTAGCCATACTGGCATCCTNATCTTGGCTTCCAACTCCAGAACTG
TGAGAAGTATATTGTTTGTGGTTTAGTCAATGGGTCTATG

Sequence 2294

CCGCGG1GGCGGCCGAGGTACACTGATTTCCGATCAAAAGAATCATCATCTTTACCTTGA
CTTTTCAGGGAATTACTGAACTTTCTTCTCAGAAGATAGGGCACAGCCATTGCCTTGGCC
TCACTTGAAGGGTCTGCATTTGGGTCTCTGGTCTCTTGCCAAGTTTCCCAGCCACTCGA
GGGAGAAATATCGGGAGGTTTGACTTCCCCGCGTACTTTGGAGTCCCCTGGTTTCTCAAG
AATTGCCGTTGACTCTTTCTTTGGCTTCTGCTGGCACGGTAACCAGACTCCCTACAACCTG
CACTCTTTGTCTTTGTATGGAAGCCGCGAGCCGTAGAGGTTCCGCGTGTCTTGCCGGAC
TGTGAGCAGGNTCACTGGGTCTTTACACTTGTGAATTCGAAGCTTGCCAGA

Sequence 2295

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTGATTTCCGATCAAA
AGAATCATCATCTTTACCTTGACTTTTCAGGGAATTACTGAACTTTCTTCTCAGAAGATA
GGGCACAGCCATTGCCTTGGCTCACTTGAAGGGTCTGCATTTGGGTCTCTGGTCTCTT
GCCAAGTTTCCCAGCCACTCGAGGGAGAAATATCGGGAGGTTTGACTTCCCCGCGTACTT
TGGGAGTCCCCTGGTTTCTCAAGAATTGCCGTTGACTCTTTCTTTGGCTTCTGCTGGCAC
GGTAACCAGACTCCCTACAACCTGCACTCTTTGTCTTTGTATGGAAGCCGCGAGCGTAGA
GGTCCGCGTGTCTTGCCGGACTGTGAGCAGGTCACTGGGTCTTTACACTTGTGAATTC
GAAGCTTGCCAAGATGTATCCCCAATGCATTGCCACTTCTGCCCCGGTTGT

Sequence 2296

CCCCGCGGTGGCGGCCGAGGTACNCGGGGGTGGACAGACATGGGAGTGCTGAATCCCCAG
AGTTAGAGTCCACATCATGTCTCTCTGAAGAACAGNTAAAGTGCTTCTGGATGAATGCA
TACTTAAACAAAAATCCATCATTAACTTTCTTCAGAAAGAAAAAGGAAGACATTGAGG
ACGTAACACCTGTGTTCCCCCAGCTTTCCAGGTCCATCATCTCTAAATTGCTAAATGAAT
CAGAAACAAAGGTCCAGAAAACTGAGGTAGAAGATGCCAGATATTGCTTTGAGAGTGAA
GAAATGTTGAAGCTTTCTTAAAGGGCTACTATCTCACTAAAAGCCCTTTGACCTGGGGA
CCATTAACCATGGTTCAAAAAGCTTCTTTGTTCCACTTGAAAGCCAGGAAGAAAATATTG
AAAANTGCCCTTTTCAAANTTT

Sequence 2297

AGCGGCCGCCCGGGCAGGTACACACACTCACGCATGCACAGGCACACTCACCGGGACACG
CACACAGTTGTGCTGTGCACACAGGCATACACACACACACCCTCACACGCACACACTC
GCTGGATCACTCACACACACACATCCACGAGAGGCGCGGCCCTCTTTGGTCTGTCAGCC
AGCCCCCTGGCTTGCTTTTGAAGGCTCTGCTAAGTCGATGGTCAGGTTGCCAAAGGGCCGG
TCATCTCGCATCCTCCCTCCCTTCGGTGCCTCTGGTCTGATGTCCAGTGAGGATCAAAGC
CAGGAGAGCGAGATGGAAGTTTCTGCTGCAACGCTTAAGCTCCGGTTGAACACAAGGC
TTGGAATCCCCGCGTCTCGGCCGCTCTTAGAACTAGTGGAATCCCCCGGGGCTGNAGG

Sequence 2298

CCGGGCAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACCTGACGCTGG
GAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGG
AACTATTTATAAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACATTTCCAC
CTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAAATGACAAGGAAGTTA
ATGGAAGTCAGCAATGTGATGGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCC
TTGTAAGAAGAGGCCAGAGAGCTTGCACACCTTCTTCTGCCATGTGAGGAGCCAAGGAA
GCCGCGNTGTCTGCAACCTGCAAGAGGGACCC

Sequence 2299

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGTAATAGTATCA

0

Table 1

GGCATTGGCTTAGACACTGAGGATAAGAGCTCTATATACTTGTGAACCTGGTGAAAGTTG
AGAAGGATGGAGAAAGAGATAGAATGAATATAAAATATGAGTAGAGAATTGCTTTAATT
TGAATAGCCTCATTGTTTTAGTGCTCTGAATAGAAATAGAAAAAATGGTTAGTATTAC
TGAATTGCTATTTTTAGGTCATTACAGAGTTAAGGACAAATTTCAATTGTCACACATAAA
AGGTCTTATTTACATAAACAATTTACAGGGCTTGTACAAATACAAGAAACCAAAGCCC
TAACTGCTGTTTCTCATGGGGTTAAATCTGTCTCTTCAATCTATCAAATATTTGGCTTTA
GAATCCTAACAGTCTTAGCTATCATTCAAAG

Sequence 2300

GAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGGAGGGCTGATTTATCACATACG
TGGGTTCTGTAGGGCCCACTGTGGGACTTGAGTATGCATTGGGTTTTGTATACTCAGGC
GTTCTGGAACATCCTCCATGTATACCAAAGGATGGTTATTTCTACAAAAGCAGGAGGTA
AAGCCCAATGCACAGCTTGCAGATTCCTCAGGCGAGAGACAGAGGTTAAGGGTAGATG
GCAGATGACCTAAGTGGCTTGTGTTAGGAGGCCACTCCCAGGGCCACAGCTTTCATGTGT
TTGCCACCAGGGTAGAAGGTCTTGCTGACAAGGGCAATGACTACTAACAGCCCCAGCTTG
CATGGAAACAGAAAAGGGCATATTGCTTGTGCCACCAGGGCTCAGGCTCTATCCCTCAG
CAAGCTTTGGGATC

Sequence 2301

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGACGCGGGAGTTTTTCAG
AATCAGGCCTGCTTTGTCCCTAAATGCTTTCTTATTTCCCGAGAGCCCTTATTGGATTTA
AGCCCCATATCATATCTCACATACCTGAGACAGACATACCACAGTGAACCCTGCATGTCC
TTGTAAGTTCTTTTTCCGTGCCTAGAAGTTGCAGAAGACCAAGGAACCTTGGAAGTGACT
TACTCTTTTGCTTCATAAAGTTGCTTTAAAACAGCCTTTATTTTAATTATTAACAAGGTA
TGTCACACATTTTTAAATTTAAGGTTAATTTAGTCATTAATTCTGTCAAACAAGTGTTT
TTTGGGAAGCTAGTTGTCTTCAATGTCTTTTACTTGGAGTTACTTGGAAGTTTGCTTAAAC
TTTATTCACTTGGAGTAGAACTTCCTAG

Sequence 2302

TACGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAAC
TTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCC
TATACGGCAACCTCCTTTGCCAGGAACATTTATAAACATCCTGCAGGAAAATGCAGTGA
AGTAGAAGAGACAGGGAATATCCCAGAAGGTTATGCAAAACATCAAGAGAAGATGAGAGG
AGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGA
GAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATTGGTGGTTGG
GAGGTGGAGCCTTCAGNAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCG
CACCTTCTTCCCTGCCATGTGAGGAGCCAAGA

Sequence 2303

TAGGGCGAATTGGANCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCATGATTAGTTAA
ATATAAGACTCCGTAATTTTTACAATTTTAACAATAATTTATTTCTTCAAGCTTGTTAG
TTTGGGATTGTATTAATACTACAGTGTGTGACTTAGAAAATGATAATGCTGCTTATGGA
AAATGGANTAATAGGTGGGTAAGACTTCATTGCAAAAATTGTGTAATACCATCAGTGTTA
GGAACCCAGTTGAAGTCTAGAAGACAGATGTTAGTATCTTAGACTAGGTTGGTATTTGAA
TAGATATTGGTAATATCAGTAGAATTTAATAATACATTAGAAAGAAAGAAATCAGAGAAG
ATTCTTTTATTTTCACTTGATACTTGTGTTGTTACTTTCAATGAGATAAAGAAGGACAGG
CAAAGGANAAAAGTTCAGGGGC

Sequence 2304

CTCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGATTATCTTA
GTGTAATGATTTTTGTAAATAATTTAGTTGTTAGATACATGAACAGATTTTTGCAAA
GAAACAAATTGCATGGCACTGTATCCTCTCAGGACATTTTGAGATAAGATGTGAAAATG
ATACTCATTGGAACCAAAAAAGATTGAAAATAATTTTGTAGAAAATATAATTAATTTA
TTCTACTATGGTGTGTATGGTGTGTGTGTGTGTATATATATATATATATACTGAAA

Table 1

TAAAATTATGAGTAATTAACCTTTATGACAGGTAACACTAATAAAGTGCACTGGCATGTTCTG
CTGAAATCCCAGCATTTTGGGGGATTGAGGTGGGGAAGGGATTACTTTGGAGGCCAGGGA
GTTTGGGACTAG

Sequence 2305

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTGAGATGATTAT
TCCCTCTTTTTTTAAATTTGAAGTTTCTTTGATTCCCTTTTCTTTTACAAAATGGAG
TCATGACACGATCCCCGTGTCCCGTGTGAGAACTGAAAGGTTTCTGTAGCTTTCTTTG
ACATGAAATTTCAAAAATATACTACTCTGTTTCACTCTGGCCTGTAATTGTTGCACTCTG
GCCTTTAATTGTTGCAACTGATTAGACATTTTCTTCCAGCATTATGGTAGACTCGATG
CCC

Sequence 2306

AGGTAATTTTCACTTTTTTTTTTTTTTTTTTGCATTTGAGCTAAGATTTTAAACAATCC
TGTGAAAATAGGTAATATAGTCACGTATTTGTTGAATACATTATTTCAAAGAACCACAAA
CACACAGAAAAAATATTTAAAAAGTCCATGGTGGGGGGAAATGATCCAGAAACAACAGCT
CTTCTACTTCCAGCCCTAACCGTCTGGGATGCTAGATGGTTGTGGGCAAACCGTGGAAAA
AGATAAGCTTCTGTTTTTCAAGATTTTATTTGTTAGAGAGTGCANAAAATCTAAGTGAT
GTCTCTGTTTTTGCCTTCTAGCAATTAATATATGACAGCAGTCTTTGTGATTTATTTAA
CTTTCTGCAAGACCTTTGGCTCACAGAACTGCAGGGTATGGTG

Sequence 2307

AGGTAATCTTGGTTTTTTAAGACAAAGAGCAAATCCTCCCCTGCCAGGATTGACTTTTGG
CTCTTTTTTTCAAACCTCACTGCTTTTTGGTTTAGTTGTCATAAAATGCCAAGCACCAT
GAACAGGGCTCCATGAAGGGGCTCAGAGGTAGGAGGGCTGTGATTAGGAGAAGGCTTGG
CTGATGGGCAATTTGAGTGCTCAGAATTAGAGTGAGGGGGTGGGGGTGCTGCAGGGACAG
ATGCTGGGGAAAGACACCTGAAGGGCAAAGGGGAGCAACAAATGGGCTGCAAGTACCTT
GCCCCGGGCGCGGCTTCTTAGAACTAGTGGGATCCCCCGGGCTTGAAGGAAATTCG
ATATCAAGCTTATCGAATACCCGTCCGAACCTTCNGAGGGGGGGGCGNCCGGGTACCCAA
GCTTTTTTGTTCCTTT

Sequence 2308

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGATGCTGCCA
CCTANGTTACTTGTAGGACCCTATACGGNAACCTCCTTTGCCAGGAACTATNTATAAACA
TCCTGCAGGAAAATGAGTCAAGGAAGCTTTNTTTTGTAGCTATTTACAGCTTTTAGCAAT
TGAGTAAAGTATACTCCTGTGAACAAAATTTGGAACATATTTGNTTCTNTCTAACTGATT
TCTNCAGAATTTGGAAGTGTGAGTGAAGTGAAGAGACAGGGATATCCCAGAAGGTTA
TGCAAAACATCAAGAGAAGATGAGAGGAGTCTATATGTCAGAATACACATTTCC

Sequence 2309

GACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNCGGGGGCAGTGG
GAAGCTCGCNGCAGCTGGGGAGGAGCCAAAGCCTCGGCAGCTCACCTAANCCGCANGGAG
ATACACCCAACCTGGGAGATGAGGAAACAGCNACCCAGAGAGGAGAACTAACCACACAGG
ATCATTNTCCGAAGGAGCACGGCTGAAGAACCANACCTGGACTTTCTTAGGACAACTTA
CTGCAGCTTGAANGANCCAACCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCT
CTACTATCAATACCAAATCATTANCTGCTGTGCTGNTTTAGAGCCCTGGGAGCGATCTAT
GTTTAACACCATCTTACTAACCATTATTGCTATGGTGGTATACACTGCCTATGTCTTTAT
TCCAATCCACATTCGCCTGGCTTGGGAATTTTTCTCAAAAA

Sequence 2310

AGGTACGCGGGAGAAATTTGTTGCATTGAGTTATTAAGTAGATTATACACATTTAGCATG
GTTAGAACTAGATGTTACCACTGAGTGTTTTCTCCTTAATAAGTTAGTTAAGAGGCTG
GGGATAATTTACGGTAAATGGCAGCTTAACCCAGTTTCAAACATTGAACTTGAAAA
TTTTCTTTTTGAAAAATTACATATACACCTGGCACTCTCTATCTGTGGGTTTACATCC
CAGGAGTCAACCAACCTCAGAAACAACCAATCGTGGATTGAAAATACTTTGGGGGGGAAA

Table 1

AAATNNAANANAAAAANAAAAANNNANGGTACCTGCCCCGGGCGG

Sequence 2311

CCGGGCAGGTACGCGGGAGAAGCTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCC
ACCTAGGTTACTTGTAGGACCTATACGGCAACCTCCTTTGCCAGGAAGTATTTATAAAC
ATCCTGCAGGAAAATGAGTCAAGGAAGCTTTTCTTTTGTAGCTATTTACAGCTTTTAGCAA
TTGAGTAAAGTATACTCCTGTGAACAAAATTTGGAACATATTTGTTTCTCTAACTGAT
TTCTCCAGAATTTGGAAGTAGTTAGTCTATATGTCAGAATACACATTTCCACCTTGCCC
AACAGTAGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAA

Sequence 2312

AGGTACGCGGGGAGTGGGAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCTCGGCGCTC
ACCTAAGCCGCGAGGAGATACACCCAACTGGGAGATGAGGAAACAGCAACCCAGAGAGGA
GAACTAACCACACAGGATCATTTCGCGAAGGAGCAAGGCTGAAGAACCAGACCTGGACT
TTCTTAGTGCTCATTCTGGGCCCTCGATCACTGCATGTTTGTTACATGGTCCAGTTTGC
TGCTTCTGGAAGAGCATCTCTGACTGTGATGCCTTTGAGAATAAAGTCTTTCCGAAGC
CATTAATATTCAGAAGGAGCCACATGGACA

Sequence 2313

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTNAANGACTGACTGTGCT
CCANANAGTGGANAAAAATGAATTGGGAGCTGAGGAGGAATGGTANATGGAGGCTAATTA
CAGGATATTTCAAGATGCTTGAAAAATCAACATCCACATGATGAGATGACCTGGGTATCTT
GGGTTTCTTGTGTGACTGGCANAAATTCATATNTAGAATATAAGGGGGTTAATATTGGCA
TTCTCTAGGGTGGTGAAGTGTCTGTTGTATCGTGTGGGGAANAAATCACCTTGACAGGA
AAACATGGAGCTCAACACATCACTTATTCAGTCACAAA

Sequence 2314

CCGCCCCGGGCAGGTACTATTCTCTCTCCAGATCAAATTTTCTCCGGTGGCTAAAAAGTT
GTTTGTGGTAACTGCAGTGAGTGCTATACCTGTAATTTTTCTGGCTCATCACTTTAAAAG
AAAACGTGGAAAGAAGAAAGGAAAAATATTACCATGGGAACCAGAGCACCTCATACTTGA
ATACACTAAAAGAGCAGCATCAGACAAAGGTTCAAGTTGTTCCAGTAGCAGACAGAATTT
GACATTATCTTTAAGTTCTACCAAAGACAAAGGATCTCAAGTTTGTAAGTATGCTAATGG
AGGACTTTTCAGTAAATATTCAGGTTCTGCACAGAGTTTGGCCTCTGTCCAG

Sequence 2315

ACTATAGGGCGAATTGGNNCTCCCCGCGGTGGCCGGCCGCCGGGGCAGCTACGCGGGATA
AGAGGCCAGAGGAAGAGCGCTTCGAGCTTCTTCAAGGAAGTATAGAGAAGAGCGGCATTGT
GCTCCTTCTGGGACCCCCACAGGACCAGAGATCCTTGCTGCTGCAGTTCCTCCTCTTCC
CTAAAGAACAAATAGGGAACAAGTAGAAGTGGTAGAATTTACAGCAATAAAAAAGAAAA
TTGACGCCAGATCATAACAAGAACACAAAGGCTAATCCTAGTGTTTTGGAGAGAGATGTG
GATACACAAGAATTTAACCTAGAAAAAGCTCGTTTAGAAGTGCACCGGTTTGGTATCACG
GGTTATGGAAAAGGAAAGGAGAGAATCCTGGAACAGGGAACGTGCCATTATGCTGGGCGC
TAAGCCTCCTAAAAAGAGTTATGTGAATTAC

Sequence 2316

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTGTTCTTTTTTNT
TTTTTNTTNTTGGAGCAGCTAAATCTAGGATGGNGTTAAGTTTCTTCAATTTGTCAAT
TATATATAAAAAATTAGAAACAACATGAATCTGCATTTCTTGGATGAGATAGTTAATAAC
AACTATTTCTCAATATTTGTATACTAAAACTAGTGAAGGTGTTATGNGTCCAGTATC
TTATCTCTTATTTGAACATGGGTTTNTGAAAGGAGCCTATATAATAATAAATGGTATG
TAGTAAATGAGGCNCTGTCTTGGCTGGGACTGCTATAAAAAAATTACCATAGACCATTGA
CTAAACCNCCAACATNTNCTTTTACAGTTCTGGAAGTTGGAAGCCAAGATGAGGATGC
CAGTATGGCTAGCTTCTAGNGAGGGTCTCTNTTGC

Sequence 2317

CCAGACGGAAGCTGACATTCGCTATTGATGTTCCAGCATTGATTGAGCTCCTGCCTCGTC

Table 1

TGCATCAAGCATGGTCCTCGCAGCTTCACGCAGTTAGAGTCCACATCACGTCTCTCTGAA
GAACAGTTAAAGTGTTTTCTGGATGAATGCATACTTAAACAAAAATCCATCATTAACTT
TCTTCACAAAAGAAAAAGGAAGACATTGAGGACGTAACACCTGTGTTCCCCCAGCTTTCC
AGGNCCATCATCTCTAAATTGCTNAATGAATCCCCAAACAAAATGGTCCANAAAACTGG
AGGTANGAAGATGCANATAGTGCTTGAGAAGTGAAGAATGTGAAGCTTTCTAAAGGCTAC
TTTCTCACTAAAGCCTTGACTGG

Sequence 2318

GCGGCCCCGAGGTACAATTGTGTCATATTCATGCACAACCTTCATTTAGTCTCTATTTGAC
TTGATTTCTTTAGTGGATTTGGGCTTTTTGGCCAATAAGATAAATACCTGCAAGGGACAT
CACATAAAATTCGATCATAGAAGAGGATCTCTTTCCTGCCGTCCACATCTATCTGGAGCC
TGGGTATGCTGGAGGCATCATGGTTGACCACCCCCGCGTACAATGGAACAAGGAGATAAG
CAGTGAAAGGCCAAGGGAATGTCTGGAGTTAGGACTTCAGGTGATTCACACTTGGCTGC
CACTACCCGAGACTGCCCAAGCCCAGATTCTTNCCTTCTATAAGAATATTGATTCTTGC
AAATAAGATGAACCTAAATGTGGTCCAGGAGCCAGCATCTTCTACATGGTACCTGCCCCG

Sequence 2319

ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCNGGGTCCGCGGGNAGGGAGAA
TGCTGCCACCTAGGCTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATT
TATAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCC
AACAGTAGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAAG
TCAGCAATGTGATGGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAG
AAGAGGCCAGAGAGCTTGCGCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGC

Sequence 2320

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGGTACGCGGGGGGACAA
GGGGCTTGAGCGTTCTGTGGAGAGAGTGCGAGGTCAGGCCATGAACTTGGGAGATGGTTT
AAAGCTTGAAACTGAATTACTGGATGGAAAAACCAAGCTAATATTGTCTCCATATGAACA
TAAATCAAAAATTTCTGTGAAGATGGGAAATAAGGCCAAGATTGCAAAATGTCCTTTAAG
AACAAAACTGGGCACATTCTAAAATCAACACAAGATACTTGATTGGGAGTGAAAACT
TTTGCAAAAGAAGCCAGTTGGTTCAGAAACATCACAGGCAAAAGAAAGAGATTTCACCTG
CAACTCCTAATATGCAGAAGACTAGAAACACCGTAAATACATCTCTAGTAGGTAAACAGA
AGCCTCACAAAAAACACATNACAGCTGAAAACATGAAGAGCAGTTTG

Sequence 2321

ATCATACTTAGGGCGAATTGGAGCTCCCCGCGGNGGCGGGCCGCGGCGGNCGGGTNCCCGGG
GGANATGCTGCCNCCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAA
CTATTTATAACATCCTGCAGGAAAATGTCAGAGATGGGAAGAAACAAGAACTTTGACAT
GCTTGGTGTTCTTGCCCAAGCTTTGAAGAAGTTTACAAAGTCTATATGTCAGAATACACA
TTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAATAAATGACAA
GGAAGTTAATGGAAGTCAGCAATGTGGTGGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAAT
TAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACCTTCTTCTGCCATGTGAGGAG
CCAAGAAGCCGGCTGTCTGCAACCTGCAAGAG

Sequence 2322

GGGNATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACACCAGAGTCCAAAGACGTAAACGT
GCCTTCAGCAGGGAAGTTTCGGAGGTCTTGGAATCTGATGGTAATATTCTTTTCATAAAAA
GGAAATAAGTAATATTTTGTGGCAAGATCACAGTCCCTAGCTATGCCTTAAATATCAT
CTCAGCTGAATCTGTGTTCCACTCCACAGCCTTCTTGCAACACTGGAAGGTAAACGGA
TTTGAAGTAAATGAATTGTAACCTGTAATTTCAACCTAATTAGAATTGGTTTAAATGCCA
GTTTGGACCGTGAACAGGCTAGCCAAGAACAAGTATTGGGAGGTCCATGTAATATNGAAG
AGAGTTGATATTTGGCCCACTTCTGATACTTTAAAAACAGAGAAGTNAACAAAATAT
GAGGATNTCTTTTGGCCAGCAAGTCC

Sequence 2323

Table 1

CNCTTAGGGCGAATTGGAGCTCCCCCGNGGGGNCNCCNNGGGACNACCCTTGGNNTTCCA
GNGGGCNTCAACANATTTTTTTTTTAAANAAATGAATCACTGAGGTTTAGAAGATG
TTAAATACTTGCCCAAGTTCCTGCTTGCCAGATGTGCCCTTGGGAATGCATCTTCTT
TCTCAAGCCTCCTTACAGGGTTGTAGTGAAGATGGAAGGGGATAAGGCAGGTGAAGCAAT
TGGAATATATTAAGTGCTCAATTAATAAGGACCTGTCATTTTTTTCTCAAGTTGAGGAT
AGGACCTGCCCTCTGGTGTCTGGGAAAGAACTGTGGGTCCAGCTTACCTAAGGAGAAGG
GGATAAAAGCTTCATTCTTTTTCAGTGCCCATTTGGCATCCAGAAAGTGGTCAGGATTGA
AGGCGTCTGGTTTTTCAAAGTAGTGTGGGTCACGGA

Sequence 2324

GGNGGCGGCCCGCCCGGGCAGGTACACACAAAGACAAACCTGAACCTAATTTCAAGGAAAA
CTTAAACCCATGCACAAATAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTCCATGT
GAGGACTCATGCTCTCTCCACTTCTTCTTGGGAGGAGGGAAGATTTACCTAATGGGTAA
ATTTGGGCAAAGCACATTGAGTGTGCTTGTGCTCTGAGTCTCTTGCAAACATGTGT
CTGCCACAGTGACATGAGTTTGCCTTGAAGTGTGCTGTCAGGAAGCTGCCTGCTCCT
GTGGCCATGTCAAGCAATTCTTCTTCAACTGCAACTGTGT

Sequence 2325

GGCGGCCGCCCGGNCAGGTACNCGGGTAATTGACATTGTGGACTTCTGGGGTAGTCCT
GAGTAAAAAGCACTTAAGCACCTGTGGTACATCAAAGAGTCTCTTGAGAGTTCTGCAAA
GATTCAAGTGTGTATACCTGAGTCTATATATCAAAAAGTAATGGAGATNAAATNGAAGAA
NGTANGAANGAGCCTNCTAAGAAGCCATCTGCCCTCAAGCCTGCCATTGAAATGCAAAAC
TCTTGTTCCAAATAAAGCCTTTGAATTGAAGAATGAACAAACATTGAGAGCANATCCGAT
GTTCCCNCCAGNAATCAAACAAAAGGACTATTGAAGAAAATTCTTGGGATTCTGAGAGT
CTCTGTGCGANGACTGTTTCACAGGAAGGGATGGTGTGTTTACCAAGGCTACACATCAAA
AAGAAAAAAAAAAAA

Sequence 2326

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTGTTTTTCACTGTGGTAGGGTG
GAGCTTAATTGGGCANACCTGTCTCAGGGACCCTGGTGGTGCATGTCAAGCAAGGCTGG
CTGTGGTAGTCAATGGGCCAGGTGATAACCAGGTCTCTGGTGGTATGTCAAANGGGGGGC
CANANGNGCTTGGACTTGNGAACCATGTTACTGGAGGAGGTGAAANTACCTTTTCACTGG
AAAGCCTCCATAGGCAGGAAGCTAGGGACACAACTTTGCTAATGCTTTAGCCCCAAAGG
CTACAACCCAGCACAGCAGCAGTTATGAGCAGNGAAATTTACCTTGAGGTACCTTGCCC
GGGCGGCCCGGNTNTAAACTAGTGGGATCCCCCGGGCTTGC

Sequence 2327

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGAGAATTGAAACT
ATAAAAAAGTCACTGCAGATTTGTTAAAAAAGCCAAATATAATTTGAAACTTG
AAAAACCAACAGTGAAAATTAAGAACTCCAAATGTGTTAGTTATCTATTGCTGTGTAAC
ATACTGCTCAAACCTGACTTAACATNACCTTTNATTATCTCAAGTTTTTGGTTGGGTCA
GGAAATCCAAAGCCTTGGGCCCTAAGNTGGGGTTCTCTGGCTTTTAGGCTTGCAAATCAA
AAGGCATTNGGTCGGGGGGTANGGGTCTCCTNTGGGAGGCTGAAGCTGGG

Sequence 2328

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACACACACACAGGC
ACACGCAGGCACACACGCAGACACACACACATAAACACACAGAGTTCACTAGTCCGAG
TACTGATTTTCTTAGGATTCTCAAAGTGACAACACCGGAAACAAGGTAATTCATGTTAA
AACACAAGGGGTTATATTAGTTAAGAGAATGGGGATCCCCGAAAGTAAACCCGNGGGAA
TTTTGGAATCCAAGTTTTCGAAAGAAGCTTAAAAAAGGAAAATTNNGGNGTTTTCAAC
CATTTCAACCCCTTCTTGGAAATCCCTTAAAGAAAAATACCAGGANGGTTTCAAAAATTN
NGGAAAAACCATTTTNCGGGGTTTTTNNGGGGATTNCCCAAAAAGNTTTGGAAANNCAN
TTTTTNGGNAATNAANGGCCCTTTANNTTTTTTTTTAAAA

Sequence 2329

Table 1

TCCTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCGAAAATAACGTCAATTTTCT
CAGGCTACTGAATTAGGTGACAGAATTTAAATTTAAATACAAAGTCACGTGGCTTTAGCA
CCCAAATTCCTAACTAAAGTTCTGTGCAGGATAAGACTTATGACACTGGGATTATTTGTG
CTCCCTTTATGCATCTGTGTTAACCCACACATATTACCAGCCCTGTAGTTAATAGGTTAA
TAAAGAATTAACGTGCTGCATAAAATATTCAAGAGAGGAGGGGCTTACTCCACAACCTGGAT
CCTTGAGTCTCACCTTCTCTACATCTCCAGACCCTCGGTGTCCAGCAGAACTAGGATGT
GGCCTGGCTTCTTGGGGTGGGGCACACACCACATCCAGATTCTTTAAGTGTGAAGACTG
CACCGTGGAGCCCAGAGAGAAGCCTGCAAG

Sequence 2330

AGGTACGCGGGGAAACACTTCTTACCTCAGAGCTGAGCTGGGCATGAGTAGATGCTCAGT
AAGTGGTGCACAGGGTTGGTCCCTATGGTGGAGGCCCTAACACCGCCCAACCCCCCTC
CATGTTCTCACAGCTCCACGCACTGAGCACGGGCATGAAGGCCATGATGTCANAAATCT
GCACCCAGGGAGCTGAGATGTGCCGAGGGCCTGTGGCGGACATGGCTACTCAAAGCTGA
GTGGCCTGCCATCACTGGTCACCAAATTGTCGGCCTCCTGTACCTGCCCGGGCGGCCGCT
CTAGAACTAGNTGGATCCCCGGGCTGCAGGGAATTCGATATCAAAGCTTATCGATACCC
GTCGACCTCGAGGGGGGGGCCCGGTACC

Sequence 2331

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTTTTTTGACATGAACATAATTAATCCTNTTAACAAATTTACAAGG
AACATATTTCCCTCACTTCATTATGTAATAATAAAACAAAAGCCTAGAAGGGTTAGTAA
CTTGCANATCATATAGTCACTTTGCAGCAGGTCTGANATTTGGGTCCCANANAGGCAGNT
CCAGCCACCATGCAACCGAATCCTGCGCAGCACAGTTCGGNGTCATTCAACAAGACGGNA
TCCATGTTGATTAAGGAATCTTAGCTNTTAAAGGNTCTACNAATTACATTTTTTCCACC
CAAGC

Sequence 2332

CTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAAAAAAAAAGAAG
TGTTTTATTGAAATTCAAATATAATTTGACATCATCCCTTATTATCATTGCTTAATCTA
GTAATCCTAACTAGGAAGAAAGCAAAAAAAAAAGGCTTCTGTATATTCATATTAGATGCTA
AAATGTATTCAAATTAGATGCTAAATTCATGCACTTACCTTGCAAGGCTCACTCTCT
CAGGACCTACAACTGGCAACTCTCACGCCAAATTTACCTCACTGATATATTTTATTGCT
TAAGCAAAATATTTTAATTTCAATTAGTTACCATCATTAAATGAATAGAGTAGACATAA
AAAAATGATTTCAATTCTGGCTTAAAAAATTTGCCAGCCTGGGTAACATAGCAAGGAT
CCTGTCTCTACAAAGAAAAAAT

Sequence 2333

CCGCGGTGGCGGCCGAGGTACAGTAGGAGTGCCAGACTCGGGGAGAGGCAAGCTGGCGC
GTCTCCAAGGTGCTTGTCACTCACCCTAGAACGTGGTCCCTTACCCTAGACAAGATCT
CCTGGTTTGACAATGCAGGTGACACAGCTGAACTTTATCTCAACACGGCCTGAAGAATA
CCACTGTCTAAATATGAGGTGCTAAATACTATGACCTACTCTAATATTCTCTCCCACT
CTGTCCATCCTCGTGACTGGCACCCATGCTGGCCCAAATGATGACAACCTCCTGTTCTAA
GTGCACAAGCCGCACATTTAATAAACCTTTACCCAGTTCTTCACTGGTGTTCATCTCT
CGGCTTCACTTACAACCACTCCCTGTGGCTTTTGCAGTGAAGCCTCTAGCCCAAACTC
TTCCACTCCCCA

Sequence 2334

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGAAGGAGG
GCACTAGGGGGAGTTAAGAATTTGTGAGTTAGGTAGCCAAGATTGTTGAGGTTGGAAGAA
TGAGGAAAGAAAGGGGATCTGTGGCAAAATATGCTATTGGATCCACAGTTCTAGTTTAA
GGACATGTCTAGTCCCTTTTCCAGCCCCCAGTTAATTACAATCCCCTGCTGCCCAAATGG
AGAGGGAGGTTGTTCAACAGTAGAGGGAGCCAGGGGCTGGGTGTCTCAATAGAACTGAT
CTGGTCCCAGAAGGGGCCTTTAGATTTAAGTTTTTCGGATCGAAGGCAGAGCAAAGTGTC

Table 1

CCTTACAACCAATGGCTAAATGTATGCCATTGTAGTAGATCACATTGTTAGTTTTCTTT

0

Sequence 2335

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGACAGGCCA
TCTCGCTATAGGAAAGGAAAGTGGAACAGCATTATCCTCAACATTTTACGAAGACAAA
ATGAAGACTGGAGTAGAAGACTGATCAGTGCAGGTGTAGCATAAAAGTGTATCCTGGAA
GATGTGGTGTGAGAAGCATCATCAGCATCATGCTATTACAATCCCAAACCATGGGGTTT
CTCACAGCTTTACACCAAAGGGCATCACTATCCCTCAAAGAGAGAAACCTGGACACATGT
ACCTGCCCCG

Sequence 2336

AGTCCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTGGAC
AAAGAAACGTGTTTTAAAAAATAACACAAAGTCCATAATTTCAATGAAAGTAAGTGCAA
GCTCTTACCAGGCTGGTCTCTGGTCCAGTTATAGCTAGTATATCTGCTTCAATACTATC
ATCTTCTGGTAAAGGTCTAGAAGACACAGGCATACTTTTAAATCCAGAAATTAAGAAAGA
ATTTTTTTTTGAAGTTCAATCTATTAACATACAGCTTATAGAAATAATTATTTGGAAAA
TGGAATAAAGCAGTGTTGTTGTTTTGAGACAGGGTCTTGCTGTCTGTCACTAGGCTGG
AATACAATGGCACAATCATGGCTCACTGCAGCCTTAACCTCTGGGCTCAAGAGATCCTCC
CGAGTATCTAAGACTACCAGGTGCCGTGCCGACGCTTGGCTAATTTAGTACCTCGGCC
GCTCTAAACTA

Sequence 2337

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTGGACAAAGAAACGTGTTTTAAAAAATAA
CACAAAGTCCATAATTTCAATGAAAGTAAGTGCAAGCTCTTACCAGGCTGGTCTCTGG
TCCAGTTATAGCTAGTATATCTGCTTCAATACTATCATCTTCTGGTAAAGGTCTAGAAGA
CACAGGCATACTTTTAAATCCAGAAATTAAGAAAGAAATTTTTTTGAAGTTCAATCTAT
TAAACATACAGCTTATAGAAATAATTATTTGGAAATGGAATAAAGCAGTGTTGTTGTTT
TTGAGACAGGGTCTTGCTGTCTGTCACTAGGCTGGAATACAATGGCACAATCATGGCTC
ACTGCAGCCTTAACCTCTGGGCTCAAGAGATCCTCCCGAGTATCTAAGACTACAGGTGCG
TGCCACGACGCTTGGCTAATTTTAGTACCT

Sequence 2338

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGCCACCTAG
GTTACTTGTAGGACCTATACGGCAACCTCCTTTGCCAGGAAGTATTTATAAACATCCTG
CAGGAAATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAA
CATAAGAAGAGAAAAACATTAAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGAT
GGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGA
GCTTGCGCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTTCTGCAACCTGC
AAGAGGACCTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGG

Sequence 2339

CCGCGGTGGCGGCCGAGGTACCCTGCTGAAAGATTATTTCTAACAGGCTTGTAGAGAAAC
GTCGGTTCATGTAAATTAGAAATTATGGGGCCACTTTGCCATTCTTCACACCTGCAATGA
ACAGGTGTTTATCTGCAGTTCTGACTTATCTCTTGAACCTCATTGTCATGTTATAGTGGG
ATGCAGCTGATGCCCTGTCCAGATCTTCTTCAGGCCACTACATCTATATATGCATTATA
TTCCAGTGGCTGTGAGTGTGGCTGTTGGTTGACAGAGGAGCTGCATCCTTCTGGAGGAA
ACTGAACTCAGCTGATGAAAGCCACCCTGGTCTCTGGGAGGTGAAGCATCTTCCAAATGAC
AGCCTGCAGTCAATGACTGATGAATATGACTTCATTGCCTCATGACAGGGA

Sequence 2340

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCNCGCCGGGCAGGTACTTACAGTTT
GACTTTGAGTCAGCTCAGCATTCTAAATCAAACGCAACAGCAGAATCATATGGCATAGA
CACTTAGCAAATCCAATGCCCTCCAGGCATCTGTTTCTGTTGATGAAATCCTCCCTATG
GAGAGCAAACCTGGTTCATATCTTCAGATAGTGTCAATCAACCCCTGGTAGCTTTCTGGG

Table 1

CTACTAAATATCACACCGTCTGGTGGGACATTTACCCCAAGTCGTGAAGGTCCGCAGCTT
CACTCCTGAGCCAGCGAGACCACGAACCCACCAGAAGGAAGAACTCCGAACACATCCGA
ACATCAGAAGGAAGAACTCCGGACACACCGCCGCTTTAAGAACTGTAACACTCACCGC
GAGGGTCCGCGG

Sequence 2341

TAGGGCGAATTGGAGCCTCCACCGCGGTGGCGGCCCGAGGTACCATGATTAGTTAAATAT
AAGACTCCGTAATTTTTACAATTTTAAACAATAATTTATTTCTTCAAGCTTGTTAGTTT
GGATTGTATTAAACTACAGTGTGTGACTTAGAAAATGATAATGCTGCTTTATGGAAAT
GGATTATAGGTGGGTAAAGACTTCATTGCAAAAATTGTGTAATACCATCAGTGTAGGAAC
CCAGTTGAAGTCTAGAAGACAGATGTTAGTATCTTAGACTAGGTTGGTATTTGAATAGAT
ATTGGTAATATCAGTAGAATTTAATAATACATTAGAAAGAAAGAAATCAGAGAAGATTCT
TTTATTTTCACTTGATACTTGTGTTGTTCTTNCAATGAGATAAGAAGGCAGGCAAAGGAG
AAAAGTTCAGGGCNGGGGATGAGAAGAAAACAANAATTNTATGTTGG

Sequence 2342

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCCTCTCTGTTCCCTCCCTCCACCTTCCCC
TCCTTTTCTGTTTTAAGATAAAGTGTGATTGGAATTCAGCAACTGCAAGTCCATTTG
AAAGAGGTCAGTTTTGTTAGAGGCCTGGATAGAGCAATATGTTGTAACCAAATCACACGT
GAACATTCTGTGGCTGAACATAAGAAATTGTGCATTATTAACGTTGTGCTTCAAGGTGGA
ATGCTGAAAGCACTTGAAAGTAGTTGCCAGAGAAGAGCTCACTGAAAACATTATTAGCT
TTATATATCCACTTGTAGAATCTCTGTACAGTGATACATCCCTCCCTTTCATCTTGATCA
TAAATATAAGACTTAAAGGAGGCAGAGTGAACGTGCTTAGGAAGCCCACTGAGAGCTCTC
AGAAAGGCGCTTAATACCTTTCTTAGTAAGTTGAAAGTAGGTTGATCTTCAAGT

Sequence 2343

CGGCCCGCCCGGGCAGGTACTATAGCTGTAAGGAGAAGCTGAGAAATGATACCCAGGAGC
AGTAGGCTTTACGCTTTCAGCCTAAACCTAAAAAAGAAAAAATTTAAAC
AGCTATTAAGTGAAGCATCTGTAAAAAATAAAAAAANGGTCCTGAGC
ACCCAAGTCAGCTGTGCACTGAGGATTATGAGGACTGCAGGCTGTAGTCATTCTCCCCC
TGAGTCGTCAGCCTTGTCACACAGCAAGGTACCT

Sequence 2344

AGGTACGCGGGGACGCTGGGAGGAGATGCTGCCACCTAGGCTACTTGTAGGACCTATA
CGGCAACCTCCTTTGCCAGGAACCTATTATAAACATCCTGCAGGAAATGAGTCAAGGAA
GCTTTTCTTTGAGCTATTTACAGCTTTTAGCAATTGAGTAAAGTATACTCCTGTGAACA
AAATTGGAACATATTTGTTTCTCTAACTGATTTCTCCAGAATTTGGAAGTATTGTA
GCTGAGACCAATGATGCTGACCTCCCTCAAAGCTGCATTTCTGAATTTCTGAAGGCAAA
CTGCTGCTATATTGNACCTGCCCC

Sequence 2345

AGGTACGCGGGGACAGGCCATCTCGCTATAGGAAAGGAAAGTGGAACAGCATTATCCT
CAACATTTTACGAAGACAAAATGAAGACTGGAGTAGAAGACTGATCAGTGCAGGTGTAG
CATAAAAGTGAATCCTGGAAGATGTGGTGTGAGAAGCATCATCAGCATCATGCTATTAC
AATCCCAAACCATGGGGGTTTCTCACAGCTTTACACCAAAGGGCATCACTATCCCTCAA
GAGAGAAACCTGGACACATGTACCTGCCCC

Sequence 2346

AGGTACGCGGGGAGTGTCTCCAGGACCCTGGCCCCTCATGCCTCCGTGCTTGCGCGTGT
GCCATTTCTCTCTCCAGAGGACCTTTCTGCCTAGGACTCATGATTGTCCCTCCCTGT
GTTGCCTAGTTTCTGTTAAGGAGAATCAACTCTCTGGATAAACGTGCCTTCTCCTG
CCACGGCATGCACCCACACATACGAGCCTCCCGGGTACCTGCCCC

Sequence 2347

CGCCCGGGCAGGTACCATGATTAGTTAAATATAAGACTCCGTAATTTTACAATTTAAC
AATAATTTATTTCTTCAAGCTTGTTAGTTGGGATTGTATTAAACTACAGTGTGTGAC

Table 1

TTAGAAATGATAATGCTGCTTTATGGAAATGGATTATAGGTGGGTAAGACTTCATTGC
AAAAATTGTGTAATACCATCAGTGTTAGGAACCCAGTTGAAGTCTAGAAGACAGATGTTA
GTATCTTAGACTAGGTTGGTATTTGAATAGATATTGGTAATATCAGTAGAATTTAATAAT
ACATTAGAAAGAAAGAAATCAGAGAAGATTCTTTATTTTCACTTGATACTTGTGTTGTT
ACTTTCAATGAGATAAGAAGGACAGGCCAAAGGAGAAAGTTTCAGGGGCAGGGGATGAGAAG
AAAACAAGAATTTTATGTTGGACATGCTAAAGTTAAACACCTGCTTAACTCAAATTGGCT
TCTGTGGAAGCAGAGGCTGCATGAGGTTGCTTATGAAAATGCTTTTTTGANGAAGCCATT
GCAGGAGGAATCTCTTANGAANCCAGGGAAGAAGGAAG

Sequence 2348

CGAGGTACGCGGGGAGAAACGCGGAGACCTGAGACCGGGAGGCTGAGGCTGTAGG
CTGTTATCCTTGACATCTGCAGCAGCCCTTCCAAGCTGTGGAGACCAGGTCATCTGGAAT
GCCATTTATGTCAATGGAAGAAAGAAAGGGGTCTCCTCCCATCCTCACCCTGCATT
CTCCACCAACCTGCTCCTGTCCCACTTCCCACTCAGTTGTTGACAATTTAACAGT
GGGTTTCTGGAACAGTGTGCTCCTCCTTGATGGTCTAACTAACTACCAGATTATTCTAA
CAGCGGGAATTTCAAGCCAGCAAACCAGACATACATAGGAGGCACAGCAAAGACCCAAG
GTGAGGGGCTTCCCTCACCTTACCCTTGTCTCACGTGGAGGTGGCGCATGTCTATGAG
ACACAGTACCTGCCCGGGCGGC

Sequence 2349

CGAGGTACCATGATTAGTTAAATATAAGACTCCGTAATTTTTACAATTTTAAACAATAATT
TTATTTCTTCAAGCTTGTAGTTTGGGATTGTATTAAACTACAGTGTGTGACTTAGAAA
ATGATAATGCTGCTTTATGGAAATGGATTATAGGTGGGTAAGACTTCATTGTAAAAATT
GTGTAATACCATCAGTGTTAGGAACCCAGTTGAAGTCTAGAAGACAGATGATAGTATCTT
AGACTAGGTTGGTATTTGAATAGATATTGGTAATATCAGTAGAATTTAATAACATTAG
AAAGAAAGAAATCAGAGAAGATTCTTTTATTTTCACTTGATACTTGTGTTGTTACTTTCA
ATGAGATAAGAAAGACAGGCCAAAGGAGAACGTTTCAGGGGCAGGGGATGAGAAGAAACAA
GAATTTTATGTTGGACATGCTAAGTTAAACAGCTGCTTAACTCAGATTGGCTTCTGTGGA
AGCAGAGGCTGACATGAGGTTGCTTATGAAAATGCTTTTTTGAGGAAGCCATTGCAGGAG
GAATCTCTAAAGGAAGCCAGGGAAGAANGAAAGAGAAGGGAA

Sequence 2350

AGGTACGTGGGGAGGCCATCTGGCTGCTGCTGCTGCCAGCTTCCAGACGGAAGCTGA
GATTTGCTATTGATGTTCCAGCATTGATTGAGCTCCTGCCTCGTCTGCATCAGGCATGGT
CCTCGCAGCTTACGCAGTTAGAGTCCACATCACGTCTCTCTGAAGAACAGTTAAAGTGT
TTTCTGGATGAATGCATACTTAAACAAAAATCCATCATTAACTTTCTTCAGAAAGAAAA
AAGGAAGACATTGAGGACGTAACACCTGTGTTCCCCCAGCTTCCAGGTCCATCATCTCT
AAATTGCTAAATGAATCAGAAACAAAGGTCCAGAAACTGAGGTAGAAGATGCAGATATG
CTTGAGAGTGAAGAATGTGAAGCTTCTAAAGGCTACTATCTCACTAAAGCCTTGACTGGA
CATAACATGTCAGAAGCTCTTGCTACTGAAGCAGANAATATGAAATGCCTTCAA

Sequence 2351

AGGTACTTTTTTTTTTTTTTTTTTTTTTTGGTTTCTTCCTTCCTTCTGTCTTTTCTTCC
TTCTTCTTTTTCTTTCTTCCTTCCTTCTTTTTCTTTCTTCCTTCCTTCTTTTTCTTT
TTTTTCTGGAGTAACCAAGTGTGACATAAGATCTGTTTGTGTTCCCCCATTTTACAAAAG
AAAATTTAAGTCTGCAACTTCCCCTAGGCATCTGCAGCAGAGAGTGGATTTGTCAACATG
CAAAGCTGCTGACCTGCCCGGGCGGCGCTCGAAGCGTGGTCGCGGCCGAGGTACGCGGG
AGTCTCGGTCTCCAAAAAGGGATACTACTAGGGAAAGCAGAAGATCTGAATCACTGTCCC
CAANAAGAGAAACTTCTAGAGAGAACAAAAGATCTCAGCCAAGAGTGAAAGATTCTTCCC
CAGGGAGAAAAATCCCAGGTCCCAGAGCAGAGAACGAGAAAGTGATAGAGATGGGCANAG
GAGAGAGAGAGAAAG

Sequence 2352

CCGGGCAGGTACCGCGGGGGCAGTGGGAAGCTCGCAGCAGCTGGGGAGGAGCCAAAGCCT

Table 1

GGAAGGAGGACTTAAGATGAAAGTGAAGCAAGAGAAAAATAATTAANAANANANTNNN
NNGTACCTGCCCGGGC

Sequence 2357

GACTACTATAGGGCTTTTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACACAACCACCCTCA
TGCCTCCTACCCCCGAGGTTCTAGAGCTAGGCTCTCCTGAGGCAATGCTTTCCTTCTCA
ATTCATATTCTTCCAGGAGGGGCACCAACGTTTTTTAAATGATGTTGGCGACGAGGACG
GTAAATTTTCTAGATGACTGAAGGCTGACTTTCCCTTTCTGTGACTCTTAGGCAACAC
CGTGACAGGAGAGACGACTCCCTTTTCTCCTTGTGACCATTCTGAATCTGTGACCCG
AAATCACAGCCAGTAGCTTTGTGGTCTCCTGGGTCTCAGCTTCCGACACCGTGTGGGAT
TCCGGGTGGAATATGAGCTGAGTGAGGAGGGAGATGAACCACAGTACCTGCCCG

Sequence 2358

CCGGGCAGGTACCATATAGGTCCAAACCCAAAACCTGATTTTTGTTTTATGAAGTAGAAAT
GGTTGCATGGGCTCTTGGCTAGAACCATCTTGGCCCATTTGAAAATCAAGTTTCTGAGAC
TGAAAAGGAAACACACAGTGACACCATTTTATGAGGAAGAGAAGAATTCTGAAGGAGCC
AGAATATATTTGCTGAATTTTGACACTGAAGAAGAAATAAACATTGAAAAACAAAGCAA
AACACAGCAACAACAAAACTAAACCCATTTAGGTTTCCACTACAGATGCAAGAAAA
AGTGCCCTTGACAGTTTTTTCTGTCTGAGTGTGTCAGCCAAGGTTGCATGGGGGAATTCA
GGATGTATAAAACATAGACAGAGAGAAGAAGATNATTTTGCACCTCAGAAATAACCTTG
TGAACAGCTGAGTAGCCTGT

Sequence 2359

TCATATAGGGCGAATTGGACTCCACCGCGGTGGCGGGCCGATGTACTTTTTTTTTTTTTT
TTTTTTGTACGGGATGGGTTTTTGCATTGTTGTGCCAGCNTGGGTCTTGAACCTCCGGGG
GCNTGNAGGCCNGCCTCCCACCAACANAATTAACCTNNTNAGAGCAGCAAGTNCCCATAT
GGNAACACAGTCACCACTCCCAGGAATTAAGAAATGTGGGACAGTNGGACATCTTTGGGGG
GCCATTATTCAGCCTGACCCTGACTCAAGGTCTGGACCAACAAAGAAAAATGGGCAGCC
CAGCACTTTTTNCCTCCTTCTCCTTTTCATCCCATTTTTTACATTTCAGTNAGAAGA
TTGTGAGAACCAATTAAGAAAGAAAGCNAAGATTGGGGGCT

Sequence 2360

AGGGCGAATTGGAGCTCCCCGCGGNGCGGGCCGAGGTACAGATTGTGTCCACTGGAAAGG
TAAATGATTGCTTTTTATATTGCATCAAACCTTGAACATCAAGGCATCCAAACACTAA
GAATTCTATCATCAAAAAATAATTCGTCTTTCTAGGTTATGAAGAGATAATTATTTGTC
TGGAAGCATTTTTATAAACCCTCACTTTTATATTTAGAAAAATCCTAAATGTGTGGTG
ACTGCTTTGTAAGTGAACCTTTCATATACTATAAACTAGTTGTGAGATAACATTCTGGTAG
CTCAGTTAATAAAACAATTTTCAAGATTAAGAAATTTTCTATGCAAGGTTTACTTCTCAA
GATGAACAGTANGACTTTGTAGTTTTATTTCCACTAAGTGAAAAAAGAACTGTGTTTTTA
AACTGTAGGAGAATTTAATAAATCAGCAAGGGTATTTTAGCTAATAGAATAAAAGTGCAA
CAGAAGAATTTGATTAGTCTATGAAAGGNTCTCTTAAATTTCTATCGGAAATAATCTTCA
TGCNAGAGATTTTANGGTTTGGATTAGCCAGTGGGAATAAGAAATGGGCATTGGTCCC
TATAATTGGGCTGGTTTTATAACTTTTGTAAATATTACCTTTTTCTGGCTGNGGTTTTATA
CTTATCCCATATGCNTGGATGGGGAAAAATTT

Sequence 2361

ACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTTTGGAGTAACATCCTCAGACAAGTAGATAGACAAGCCTCCAGC
AAACAATGGGAGGAAGAATGCCATGATTCTCCTTAAATGTANAAGCTCTCTGGCCTCT
GCTGTGCATAATCTGCCTACCCATCAAATCACAAAATTTGTTTGTATATAATATCATC
CTTTCTCACAGCTTTTATCAGCAGAGTTCTTAAGTTCTCAAGGGAAGTGTCTATTTGAGG
AACTATAAGGATTGGTCAAATATGCTGGAATACTGCAAGGCTAAAAATGAGATTCTTT
ATAAGACTATGAATCCAGTGAACATAATATTAGGCAAGACAACATTGTTTTATCCANATG
GCTAATTTGCATGACTCCGTTTAAACACTTGATTTTTTT

Table 1

Sequence 2362

CCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACC
TGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCC
TTTGCCAGGAACTATTTATAAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACAC
ATTTCCACCTTGCCCAACAGTNGAAAAACATANGAAGAGAAAAACATTAAAAATGACA
AGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGGAGGTGGAGCCTTCAGAAGGTAA
TTAATGCCCTTGTAAGAAGAGGCCANAGAGCTTGCGCACCTTCTTCCTGCCATGTGAGGA
GCCAAG

Sequence 2363

AGGTACCACACACACAGGCACACGCAGGCACACACGCAGACACACACACATATAAACA
CACAGAGTTCACTAGTCCGAGTTACTGATTTTCTTAGGATTCTCAAAGTGACAACACCGG
AAACAAGGTAATTCATGTTAAACACAAGGGTTATATCAGTAAAGAAGATGGGATCCCCG
AAGTAAACCGTGGAATTTGAATCAAGCTTCGAAGAGCTAAAAAAGAAATTGGAGTTTCA
ACATTCACCTTCTTGAATCCTTAAGAAATACAGAAGTTCAAAATAGAAAAACATTACAGTT
TCAGGATACAAAAGTAGAAACATCTGAGATTAAGCCTACATTTTTAAAAAAGATATTGA
AAATTACTGTGCTTGTAATACCAGCTTTTCAAACATCAATACCAGTATTGGCATTACCTA
GATC

Sequence 2364

GGGGCGAATTGGAGCTCCACCCGCGGTGGCGGCCCGAGGTACCGCGGGGGCGCCGTGTG
CCATTTCTCTCTCCAGAGGACCTTTCTGCCTAGGACTCATGATTGTCCCTCCCTGCT
GTTGCCCTAGTTTCTGGTATTAAGGAGAATCACTCTCTGGATAAACGTGCCTTCTCCTG
CCACGGCATGCACCCACACATGCGAGCCTCCCGGGTACCTGCCCCGGCGGCCGCTCGA

Sequence 2365

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGTCCCT
GAATTCCATCTGACTCTAATTTTATGAGAATTGCAGAACTCTGATGGCAATAAATATATG
TATTATGAAAAATAAAGTTGTAATTTCTGATGACTCTAAGTCCCTTTCTTTGGTTAATA
ATAAAATGCCTTTGTATATATTGGATGTTGGAAGAGTTCAAATTATTTGATGTCCGCCAA
CAAAATTTCTCAGAGGGCAAAATCTGGAAGACTTTTGGAAACACACTCTGATCAACTCTT
CTTGCCGACAGTCATTTTGTGATTTGAGTTTCAAGCAAAATATTATGGCATTTTGGATGCT
TTATTCAAGGGCTATTACCTCAAACCTTTTCTTCTCAGAAATCCCAGGGATTTCACAA
GGGATACCTTGTTATATATGGGGAAAAACAAGCAAGGTTTAT

Sequence 2366

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACTTTACTCA
CCCTTCCTCTGACAGAAAAGGATGAAGTCAAGGGCCTGGTAGAGGCACCACTAAGAAAGG
CATCTGAAAGGACCAAAGAGAGTGACCAGCAAGCATTTTTTGAAGGCTGAGGAGCTGAC
AGCTTCCATGAAAGGCTGGACCACCCAGTGGTTGAAAAGCATCATCTGGGTTACCTTGTG
CTGCCATAAAACACACCACAGACTTGGTGACTTAAACCACAGATATTTATCTTCTCACAA
TCCTGGAGGCTGGAAGTCTGCAATCACGGTGCCAGCATGGTCAGGTTCTGGTGAGGGCCT
CTTTCCTTCTCACTGTGTGCTCTTCTTGTGCATGGGAGAGAGAAGAGAGCCATTGAACC
AAGNCCCTCTTACTGTCCCTCTTAAGAAGGGGCACTAAAT

Sequence 2367

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGAGGTACGGGGGGAGGAGTTA
GGGCTTAGGAAGAAGGAAATGCACAACTTGGGACCTGAGTTAGGCCTTCATCGTCGCGGA
CTCAGTAGACAGAGGCCATAGGTGCAGCTGTGATGGTAGAGGTGGAAGACTGATTGTCAT
TTTACCAGGTGAGACCTGGTTACTCAATTGGTTGGATGAGGGAAAGAGATGATAGCCAG
GGGCGGCATAAAACGGCAATGAGCTCAGTAAACAACCCCTTCCCGTGATCTTCGTGGCT
TCCCGCCCAGACNTGTGACCAATATAGCAAGGAGCAGTCTTTAAGGCGACACCGGCAGAG
AGGCAGAAAAAGATGGGCCCTTACNCGGTTAGTTAAGAAAAAAGAGGACCTGTTGCCCT
GTCCCTCTAGCTTTGAACCTACAAAGTGGGAGGGGG

Table 1

Sequence 2368

TAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCCGGGCAGGTACACGTCCCTAGAA
GCACATAGCTCCAGCAACAAAGCTAATCTGAGAGTAATACCCAAGATGCCTCCTACCTTG
CAAAATTTCAAGGAATTTCTCACTGGTGTATTTCATAGGATGCTCAGTGAAAGTAGCATAA
GGAAC TTCAGTGGACCATGGGGTTCAGCGGGGACAGAAGAGACTGCTCCTCCGGACTCC
CCCAGTAGATCCTAAGGCCTTCTCCTTGCTCTTGTCACAGGGACATCCCAGGGAAGGTGA
ACTTGCC CAGGCAGATGCGATAGACAGCGCTCAGAGGAATCCGCTGCAGCTGCACACAAC
TCAGCATGATGGAAGTCGTATTTGCAGGATCAAGGAGAGTCTTGCTGTGGACCAGTAAG
NAAATCTCTCCTTCTCATTG

Sequence 2369

GACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAGACGGGGCTGT
AATCTGGTAACTGTATGATTTTAGTTCCTCAGTCCCTGGGAAGGAGACAGGAGAAGGTG
GGAGGGGAGGAAGGGGCCAGCTGAAATGAAACAGATCCCTGATCCGGGGCGGTCAGTGGA
ACCCCTCTTGGTGTGCGAGAGCCTGTGCATTTCAAGAGGCAGCAAAAAAGTAAAAAAAAA
AAAAAAAAATTGATCTTTGTTTAGATTAACAGGACCCCTGACTATGAANAAAGGAAGGCATC
CAGACGAAACCGAAAAATGTCTAGCCAAATCCAAAAAGTGCAAAAAAGTTGCATTG
ACTCACTGGAGGGACTTTCCCCAAGAAACAGCTNGTTTNAACCCGGCCCGCTCTTANAAC
TAGTTGGGATCCCCCGGGCTGG

Sequence 2370

CCGCGGTGGCGGCCGAGGTACCATTTAATCCTCACCCCTGACTGTCACTAGACTGCCATG
GAAACCCCAAGGATGCCTGTCTGTTGGACATGTGGTCAGAGACTGGCTCCAAAGATATC
TCCCAAAGAGCAAAAGCCACCATCTTCCTGTTGGTGCCAGACACAGGTGCATGAGCTCC
AAGGACTCCTTCTAGGCCACCTCTNTGCTGCCTGATCTAACTCACCTCATTTCTGGGA
GCTGGTCTGAGAGTCTGCCTTGGAGATGTGTTGGATGGGAAGTAGGGGTTGTAGGCTCC
ATTGTGAGCAATACTGATGGGAAAATGACCCCAACTGGTATGGATATTTTTGCANTAAA
AGCCCCCTGNAAATNCTGGACATGCTCAGGGGTCAAGAGCCATTGAA

Sequence 2371

[illegible]

CGTAATCATGGGTCATAAGCTGTTTCCTGTGTGAAATTGGTTATCCCGCTCACCAATTCC
CACAACAACATTACGGAGCNCGGGNAGGCATAAAAGTGTAAGAGCCTGGGGGT

Sequence 2372

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCAAATTTGGAGC
ATCATTTGAAATCATTTTCTGATTCTAAGCTATAACTGAAATACAAATATAACATTAAGA
CACCCCAAAGAAGACATTAAGGATACACTTGTCTGTTCTTAAGTGTGTTTCACTAAAAATA
ATAACAAAAAACTTTTAATTTTAAAAATGGTTCTAGCTTTTAAAAACCTGCAGTAAATA
CTTTACAAGTGGCTAGACACCTTCCCTGGTGGTTTAGTTTATACAAGCAGAACTTTCT
CTCCTACTCTTCTCTCTCTCTTTCTTTGTTTTCTTTAAACCAACTGACGTAATGCCAAAC
TTTGCTTTAAAGAAGACAGACAGGAAGTAATTGGTAGCTTTTAACTTTTAATAATGTTCTG
GGATTGGGTTTTAGTGCCAAAATGCCATTTAAAAAAGTT

Sequence 2373

AGGTACCATGATTAGTTAAATATAAGACTCCGTAATTTTACAATTTTAACAATAATTTT
ATTTCTTCAAGCTTGTTAGTTTGGGATTGTATTTAAACTACAGTGTGTGACTTAGAAAAAT
GATAATGCTGCTTTATGGAAAATGGATTATAGGTGGGTAAGACTTCATTGCCAAAAAATT
GTGTAATACCATCAGTGTTAGGAACCCAGTTGAAGTCTAGAAGACAGATGATAGTATCTT

Table 1

AGACTAGGTTGGTATTTGAATAGATATTGGTAATATCAGTAGAATCTTAATAATACATTA
GAAAGAAAGAAATCAGAGAAGATTCTTTTATTTTCACTTGATACCTGTGTTGTTACTTTC
AATGAGATAAGAAAGACAGGCCAAAGGAGGAACGTTCAAGGGCAGGGGATGAGGAAGAAA
ACAAGGA

Sequence 2374

AGGTACGCGGGCATCCTTAGGAGACCTGAGTCCTCAAGAAAACCCTCTTCTGGAAGTAGT
TGCTCCTTCAGAACGTTTTACAGAAAACACTAATGTAAAAGACACAATAATGTNAAAGA
CACAAAAGAGATGTGTTCAAAGACACATTTTCTGAAAACACAAAANCTNACAAATTCAAT
CCTCCCTGGAGNGGCAAGTTTTTCNCGGCTGGGGNAACCTTGGCAATTCNAAAACCTNT
NANGAAACCCATAACCTTGGTTTNAAAAACCAAAAAACCTTGAAGGAACCAATAATA
TTTGNNGGGAANATTAACCAANCCAANAATTGGTTGGGGGGGCCAATTTTGGAAACCTNT
TTTGNGTTCNCCCCCTTGGGAAGNCCCCCAAAAAANAGGGCCTTTTTCAANANTTTTA
ANCCCCCCTAATTTTGGGCTTCNTTCCNGGTTTTCCCCCCCCAAGGGGGTTTNGNAATTC
CAAGGNCCTTTTGGTAAANAATTTTTCNAAGGNCCTTAAACCCCGGAAGGNCAANGCC
TTAACCNNGGGTTCTCCCCCTTNNATTTCCCCCCCCNAAACCGGAAGGGGGATTGGTTGG
AAGGAAAAAAGGGTTTNCATTTGGGTCCTTNCATTTGGGTTTAAATTCNTGGGGGAACCC
CTTTGGGAA

Sequence 2375

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTCATTTA
ATTAGGGTTGCAGAGGAGATGGAAAAACAAGCTGTTTGATTATGAAGGCAACACTTCTGT
CAGTAGAATTGCTTTGGATTGTAAATATGTTTACTTCAGAGGAAATCAGTCAGAGTGGAT
GGCTCAGCAAAACCCATCACAACTGCGGAAAAAAGGAAGTGAAGTGGCTAGAGGTAAGGAA
ATAGATTTTCTCTAAGTTAACTGGCCTACGTGTGAATCGAACCTGCACCCCTGGCCTCAT
TAGCACCAACACTGTGAAGAACAGCTGTGGCAGAGAAAGTGCCACGGCCCCACCCCATCA
CCAGATTCAAGTAGAAAGGCCCTTGGAAATTTCTACAAGGGTTCAAGTTCTGAACAGCTCCA
CTTCAAATCAGTATAGAATCCTCACAGTGACTCTGTGAGGGGAGG

Sequence 2376

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGTGTCCAGGTTTC
TCTCTTTGAGGGATACGTGATGCCCTTTGGTGTAAAGCTGTGAGAAACCCCATGGTTTG
GGATTGTAATAGCATGATGCTGATGATGCTGGAAGAGGCATCAAACTCAGTTACTTCCC
AAGGTTTGACTTACAGACATAAACTTCCCAGGGACCATACTTTGTAGGAACTTAAGAAGG
TATTTGCCATTATTCCAAGGCTGGTTGTCTTCANAAACAAAACATGGGGATCAGTGGAG
CATTGGAAAGTGGGCATGCTGGGCACAGTTCATCCATTGTGGTCAAGAAGCATGTCACTG
GGAGAGTACCT

Sequence 2376

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGTGTCCAGGTTTC
TCTCTTTGAGGGATACGTGATGCCCTTTGGTGTAAAGCTGTGAGAAACCCCATGGTTTG
GGATTGTAATAGCATGATGCTGATGATGCTGGAAGAGGCATCAAACTCAGTTACTTCCC
AAGGTTTGACTTACAGACATAAACTTCCCAGGGACCATACTTTGTAGGAACTTAAGAAGG
TATTTGCCATTATTCCAAGGCTGGTTGTCTTCANAAACAAAACATGGGGATCAGTGGAG
CATTGGAAAGTGGGCATGCTGGGCACAGTTCATCCATTGTGGTCAAGAAGCATGTCACTG
GGAGAGTACCT

Sequence 2378

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTCATCTCTCTGACCTATTGCGATGGCATTC
ATGGCTGCAACTGATCATAGCAACCAGCTGCGAATGGCTGGGCTCCAGGCGCTTGAAGAC
ATTATCAAGAAGTTTGCCTCTGTGCTGAGCCAGAATTTCCAGGTCATGCGATACTGGAG
CAGTATCAGGCTAATGTGGGAGCTGCTCTAAGACCAGCCTTTTCACAAGATACACCATCA
GATATAATAGCGAAAGCTTGCCAGGTATGTAGTACCT

Sequence 2378

Table 1

CCGCGGTGGCGGCCGCCGGGCGAGGTACTTCATCTCTCTGACCTCATTGCGATGGCATTG
ATGGCTGCAACTGATCATAGCAACCAGCTGCGAATGGCTGGGCTCCAGGCGCTTGAAGAC
ATTATCAAGAAGTTTGCCTGTGCCTGAGCCAGAATTTCCAGGTCATGCGATACTGGAG
CAGTATCAGGCTAATGTGGGAGCTGCTCTAAGACCAGCCTTTTCAAGATACACCATCA
GATATAATAGCGAAAGCTTGCCAGGTATGTAGTACCT

Sequence 2379

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACGGCCTGGCTACCTGTGGGTTG
TTTGGATCTATCGGAACCTCATTGGAAGTGTGCACTTCTTTTCATCCTCACCCTCATTG
TGCTAATCATCACCTATCTTTACTGGCAGATCACAGAGGGAAGGAAGATTATGATAAGGC
TGCTCCATGAGCAGATCATTAAATGAGGGCAAAGATAAAATGTTCTGATAGAAAAATTGA
TCAAGCTGCAGGATATGGAGAAGAAAGCAAACCCAGCTCACTTGTCTGGAAAGGAGAG
AGGTGGAGCAACAAGGCTTTTTGCATTTGGGGGAACATGATGGCAGTCTTGACTTGCGAT
CTAGAAATCAGTTCAAGAAGGTAATCCAAGGGCCTGATGACTCTTTTGGTAACCAGACA
CCAATCAAATAAGGGGAGGAGATGAAAATGGAATGATTTCTTCATGCCACCTGTGCCTT
TAAGAACTGCCCANAAAAAAA

Sequence 2380

AGGTACGCGGGGGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACT
TGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATTATAAACATCCTGCAGGAA
AATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAG
AAGAGAAAAACATTAATAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGT
TGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGC
GCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGA
CCCTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGCTTTCCAACCTCCAGAAGT
TGAGAAGTATATGTTTGTGGTTTAGTCAATGGTCTATGGTAATTTTTTATAGCAATCCC
AGCCAAGACAGTGCCTCATTTACTACATACCATTTATATTATTATATAGGCTCCTTTTCA
AAACCATGTTCAAATAAGAGATAAGATACTGAAACACATAACACCTTTTCGCTAGTTTT
AGTATACAAATATTG

Sequence 2381

CCGCGGTGGCGGCCGAGGTACAACATGGGGCTGTTTCATCCTTCGTCTTGCTGAAGATGGT
CCTGCCACCAAAGATGGCAGAATTCATGTTGGTGACCAGATTGTTGAAATCAATGGGGAA
CCTACACAAGGAATCACACATCTCGAGCAATTGAGCTCATTGAGGCTGGTGAAATAAAG
TTCTTCTTCTTTGAGGCCAGGAACCTGGCTTGATACCTGACCATGGTGATTGGGATATTA
ATAATCCTTCGTCTTCAAATGTGATTTATGATGAACAGTCACCATACCCCCATCTTCAC
ATTTTGCTTCCATATTTGAAGAGTCTCAGTGCCAGTAATTGAAGAATCTTTGAGAGTTC
AGATATGTGAAAAGGCAGAGAATTAAGGACATTGTGCCTGAAAAGAAAAGCACTTTAA
ATGAAAATCAGCCTGAGATAAAGCATCAGTCTCTTCTCCAGAAAAATGTGAGTAAAGAGG
GATCCACCCAGCAGTCATGGGCACAGTAACAAGAAAAATCTATTAATAANTAGAAAAATGG
TGTTACACNAAGAGGTAGATCGGNTAGTCCCAAAAAGCCAGCCAGTCACATTCAGAGGGA
ACATTTGGATAAGATTNCTAGTCTNTNAAAAATAACCCCAA

Sequence 2382

GGGCGAATTGGAGCTCCCCGCGGNNCGCGCCGATGGCCTCTTCTAGGCAGATCCGTCTAC
AACTGGTAACAGCAACCATATCGAGTTTCTCTTTATCACAATACCACGAGGCTTATCATC
ATTGCCATGCCCTTAGTAACATCACTTTTTTAAATGGGCATTTTCACAATGTAATCTGCA
ACCTACATATAACATGCACTCTTTATTGAAGGCCGTACCTGCCCCGGCGGCCGCTCGAGA
GACACATTACCTGAATGAGCAGGTGAAAGCCATCAAAGAATTGGGTGACCACGTGACCAA
CTTGCGCAAGATGGGAGCGCCCGAATCTGGCTTGCGGAATATCTCTTTGACAAGCACAC
CCTGGGAGACAGTGATAATGAAAGCTAAGCCTCGGGCTAATTTCCCATAGCCCGTGGGG
TGACTTCCCTGGTCACCAAGGCAGTGCATGCATGTTGGGGTTTNTTTACCTTTTTCTAT
TAAGTTGGACCCTCGnnNAA

Table 1

TATTCAAGCTTATTTCGATTCCGGTCNACCTTCGANGGG

Sequence 2383

CCGGGCAGGTACGCGGGGGGGGGGATTCTTGATCCATGCACAGCGATGTGAGCTGAGG
TGCAGGCACCAGACCTAGGAATTCCTAGAAAAATAGTCAGGAAGCATTTAGACACATCAA
ATGTTAAACGAGTCCTGATTATGATGATAATGATGATGATTTTGGTGGTTGCAATAGCAA
AGCCTTAAGTATGAAGGAGACGTGCCAGCTGGAAATACAGGTAGACAATGAACAACCTGAA
TTTAGAGGACGAAGACATTGAAAGCATTGATGCCACCAAATTGAGCCGTTTCATTGAGAT
CAACAGCCTCCACATGGTGACAGAGTACCT

Sequence 2384

CCGCGGTGGCGGCCGCCGGGCAGGTACACACAAAGACAAACCTGAACTTAATTTCAAGG
AAAACCTAAACCCATGCACAAATAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTCC
ATGTGAGGACTCATGCTCTCTCCACTTCTTCTTGGGAGGAGGGAAGATTACCTAATGG
GTAAATTTGGGCAAAGCACATTGAGTGTGCTTGTTTGGCTCTGAGTCTCTTGGCAAACAT
GTGTCTGCCACAGTGACATGAGTTTGCGTTGACTGTGCTGCCTGCAGGAAGCTGCCTGC
TCCTGTGACCATGTCAAGCAATTCCTTCTTCAACTGCAACTGTGTGTAAGAGCTTAGTC
TGAGAAGAAATGTTGAGAAGCTCACTGTGGCTGCACATCTGAGCCATGTCTTCCATTAG
TTGTCATGAGTCAGCAATAAAGCGGGTATGTTGATGTCTATCAATCTAAT

Sequence 2385

CCGCGGTGGCGGCCGCCGGGCAGGTACACACAAAGACAAACCTGAACTTAATTTCAAGG
AAAACCTAAACCCATGCACAAATAATTGGTGAGCCTTCATTTCCCTGACTTCAAGTTTCC
ATGTGAGGACTCATGCTCTCTCCACTTCTTCTTGGGAGGAGGGAAGATTACCTAATGG
GTAAATTTGGGCAAAGCACATTGAGTGTGCTTGTTTGGCTCTGAGTCTCTTGGCAAACAT
GTGTCTGCCACAGTGACATGAGTTTGCGTTGACTGTGCTGCCTGCAGGAAGCTGCCTGC
TCCTGTGACCATGTCAAGCAATTCCTTCTTCAACTGCAACTGTGTGTAAGAGCTTAGTC
TGAGAAGAAATGTTGAGAAGCTCACTGTGGCTGCACATCTGANCCATGTCTTCCATTAG
TTGTCATGAGTCANCAATAAAGCGGGTATGTTGATGTCTATCAATCTAATTCCTATGTT
TGAAGTCAGG

Sequence 2386

CGCCCCGGGCAGGTACCCGGGAGGCTCGCATGTGTGGGTGCATGCCGTGGCAGGAGAAGGC
TTCCGAAGAGCCATGCATGCGTCTCTGGCTGCTCCAGGTGTAAAAATGCCAGGGAGGG
GACAATGATGAGTCCTAGGCAGGAAAGTCTCTGGAGAGAGGAAATGGCACACGCGCAA
GCACGGAGGCATGAGGGGCCAGGGTCTTGAGGACACTGGGCCGGGACAGATCAGACTCC
CCCCGCGTACCT

Sequence 2387

AGGTACGCGGGTTTCTCAACATGGCTGCGCCCTTGTCAGTGGAGGTGGAGTTCGGGTGA
GTCACAGAGCTGGGGCGCCGTGGGGATGGATTGAAGTCGTCGGGCCAGAAATTCCTTCT
TTGCCGTGGGGCCTGACA

Sequence 2388

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCNCGCCCGGGCAGGTACGCGGGGGGGGGG
GGATTCTTGATCCATGCACAGCGATGTGAGCTGAGGTGCAGGCACCAGACCTAGGAATTC
CTAGAAAAATAGTCAGGAAGCATTTAGACACATCAAATGTTAAACGAGTCCTGATTATGA
TGATAATGATGATTTTTGGTGGTTGCAATAGCAAANCCTTAAGTATGAAGGAGACGTG
CCAGCTGGAAATACAGGTAGACAATGAACAACCTGAATTTAGAGGACGAAGACATTGAAAG
CATTGATGCCACCAAATTGAGCCGTTTCATTGAGATCAACAGCCTCCACATGGTGACAGA
GTACCT

Sequence 2389

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTGGGGAGAAGATCATGCAATTCCTAGGACAGGACTAATACATTTAGCTGTGGCTATT
ATCAAAGAGCACCAANACCTTAGGTGGGGCAACCAGACTGGCTATGGGGCTCGATGTAAG

Table 1

CCAGACCCATGACCCATAAACTATTTTCAGGTAGGAAGTAAGCAATACTATAACTTGGACT
CGAGGGGGAGCAAAAGGGCACCCTCAATGGTGATGGCTGCCACTTGGTCTCAACACTG
TAAACTTGGGACTTGCT

Sequence 2390

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCTTTTTTTTTTTTT
TTTTTTTTGGGGGGATTACACAATNNAAGCCCCAAGGATATTCATCAATTCATTTCTT
TTCTCTTATGACTATTTCTTCTTTATCCTAAATTGTCAAAAATCATCAAGGGGCATTC
TGATACANAAGCACTCTGATACANAACACNCANTTAACATGAAAAATTAACGGTTAACAA
AAAAGGAAAGTTACAGAGGATAAAATACCTTTTAGCCTTGACCCATTTTACTTCTTTCTT
GGGCATACAGATACATGCTAATATCCATACCTTGCTAAATATAAAAAATACCTGAGAGTAG
CTGGATGGAGCCCAATTTTGTATANACAGCCTGTTAGTTTCTCCATCTCTATATGCATTG
GCATATAAAAAGTAAGAGAAAACCTAAACAAGTTCTTTTAAATGTAACCTCCTTTTTGAA
AATATGCATATAAGACTATGCATTTTAATTTTTCATGAATACTGACCTTCTGTAAATGCAA
ATACCCATTTTCTACATTACAATATTACCCAAGGGGGAA

Sequence 2391

CGAGGTACTTTTTTTTTTTTTTTTTTTTTTNGATGCTATTACTGAATAACTCTTTCTGA
GATGGTTGTTGTATAGTAAACCATGAGTCTGGCATGTCTAAAATTGTCTTCATTTCTTTT
CATAAATTTGAATGTTTTGCTGTGTAAAGTCATTCAAAGTTGAAGACAATGTCCCATCTTT
TGACAGAAAGGGAAGGAAGGATATGTGCTCAGCCTGCCAGTTTGACCCACTTTTGAAGG
GGCTTTGTGGTCTCTACCAATGAGAAGTCTGGTGTCAATGTGATTTTCTTAACCTTTATAG
GAATGTTTGTTCCTCTTTTCTGAAAACCTGNGCTTTTCATCAGGCTCTACCAGCCTTG
ATACTCTGTCACTCACTGGGCATGGTACCTGCCCG

Sequence 2392

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTTTACTCAC
CCTTCTCTGACAGAAAAGGATGAAGTCAAGGGCCTGGTAGAGGCACCCTAAGAAAGGC
ATCTGAAAGGACCAAAGAGAGTGACCAGCAAGCATTTTTTGAAGGCTGAGGAGCTGACA
GCTTCCATGAAAGGCTGGACCACCCAGTGGTGAAGGCATCATCTGGGTACCTTGCTGCT
GCCATAAAACACACCACAGACTTGGTGACTTAAACCACAGATATTTATCTTCTCACAATC
CTGGAGGCTGGAAGTCTGCAATCACGGTGCCAGCATGGTCAGGTTCTGGTGAGGGCCTCT
TTCTTCTCACTGTGTGCTCTTTCTTGTGCATGGAGAGAGAGAGCATGAACAAGCCCTCT
ACTGTCCCTCTTAGAAGGGCACTAATCCCATATAAGGCATTNCAACCTTCTGACCTCGG
GCTAACCTTAGTTAAGTACCTCGGCCCGCTCTAANAACCTAAGTGGATCCCCCGGGCTTGC
AANGAATTTGATATCAAAGCTTATCGATACCCGTCNA

Sequence 2393

CCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGAGAACAGGCGATATCTTCACCATGCC
CACAATGAAATCAATACTCAGAGAAGGCAGATAATTCTCCACGAAGCCAGAAAACCTAATA
AATGAACAACCTTGGGTGAAATGTCCCACCAGACGGTGTGATATTTAGTAGCCAGAAAGC
TGCCAAGGGGTTGAATGACACTATCTGAAGATATGAACCAGTTTGCTCTCCATAGGGAGG
ATTTTCATCAACAGGAAACAGATGCCTGGAAGGCATTGGATTTGCTAAGTGTCTATGCCAT
ATGATTCTGCTGTTTGCGTTTGATTAGAATGCTGAGCTGACTCAAAGTCAAACCTATTTT
ATATGTTGAAATCCTGACTCCCAGCCTGAGGGCATTACGAGGGGCTCTGGGAGGTGATTA
GGTCATGAGGGTGGAGCCCTCATGAATGGGATTAGTGCCCTTATAAAAAGAGGCATCAGA
GAGATCGTTTGCTCCTTCTGCCATGTGAAGACACANCAATGGATGACTATCANGGTATTA
AAGAAAGAACA

Sequence 2394

CGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGGGGATGAGTCAGGGAGAGCTAGTGTG
GTAGCAGTTTCTAGAGCTGTTTTCAAGGAATGGAAGAGGAGTGGGGAAAGGATTTAGGA
TCTATGGGGTTGGCTAGGTTTCCCTTTCTGAGTTTATATAATGGTTTCGAGAATAAATGT
TGAAGGAGCANGAGGGTGTCTTGTGAGAAGATTTAAAGGAGGGGCTACAAAGTAGAAGG

Table 1

[illegible]

Sequence 2395

CCGCGGTGGCGGCCCGCCGGGCAGGTA CTGTGATATCCACATATTTTGAGAAAAATTC
CCAAGCCAGGCGAATGTGGATTGGAATAAGACATAGGCAGTGTATACCACCATAGCAAT
AATGGTTAATAAGATGGCGTTAAACATAGATCGCTCCAGGGCTCTAAAACAGCACAGCA
GCTAATGATTTGGTATTGATAGTAGAGCCAGGAGAAATATTCTTCACACGCCTCAAATC
CATGGTTGGCTCCTTCAAGCTGCGAGTAAGTTTGTCCTAAGAAAGTCCAGGTCTGGTTCTT
CAGCCTTGCTCCTTCGCGAAATGACTGTGTGGTTAAGTTCTCCTCTCTGGGTTGCTG
TTTCTCATCTCCCAGTTGGGTGATCTCCCTGCGGCTTAGTGAGCGCCGAGGCTTTGG
CTCCTCCCCAGCTGCTGCGAGCTTCCCACTGCCCGCGTACCT

Sequence 2396

TGGCGGCCGCCCGGGCAGGTACTTTTTTTGNTTTTTNANTCNTTTTTANAACAAACA
CAAAAAAGTTTTATTTAAAAAAGAGTTTGACATTTAAAGTTTGAAATAATATTAAGT
GACACCCTGTTTCCTTGGAAACACAATGCANAACCACAACTCTGAGACTTATTATAGCG
AAAGTATTGTCAATTCAGTTCAATCTAATGGTATGAGGTTAGCTTTGAAGGCCAAAAGAAA
CTAGTTTCTAATTCATTCTTCTCCCCACTAGACTTGTGGCCTAGGTAATTTTGTATC
TTCTGAGTCTGTTTCTCATCAGGACGAGGATAATTCCTAAGTAATAGATCATATGTAG
AAGTGAATATGATCTCATGGCAGGAGGACATNAACCATAGTTAATTATTAAGAATATATT
ACATTGAGCTATCCTTTTATNTACTTTAAAAA

Sequence 2397

CCGGGGGNTTGGGGCCGGGGTCNCGGGGGGAAGGCCAACCCCCCAAAGGGGGGTTGGCC
GAAGGGGGGCCACCCAAAGNTNNCCTTGGNTGGGGGGCCGGCCNTGGTTGGTTGGGNCA
ACCCCAANTTTNCAACCNAGGNCAAAAGGGTTCCCAAATTCCTNTGGGGGGGTNCATTG
GTAAAGGNTGGGCCAAAGNCCAAAGGGGAAAGNCCGGNGGCCCGGCCCCCTTTNCCTTN
TGGA AAAAATTCNTTCCCAACCCCTTAAAGTTNGNAACCCAAAACCCAAACNNGNAAA
ACCTTTTGNAAAGGTTGGGTTGGGTTGGGGGTTCCCCCTTTGGCCCTCCCAAAGNGG
GAAATTCCTTCCCTTTCCGGTTTTGGGTTTGGGCCAAATTTAAAAAAAATAATGGGTTN
CCAAGGCCCTTNCCGGGTTNTTAAAAAAAAGGGGGGAATTTGGGCCCCCCCGGCCGGGA
TTAAACCNCNTTTCGGGGGGGGGNCNCCNGNNGTTCCTTTAAGGAAAAACCTT
TAAAGGTTTTGGGGGGGAAATTTCCCCCCCCCCCCGGGGGGGGGNCNTTGGCCNAAA
GGGGGGGAAAAAANTTTTTNCCNGGAAATTTAANTTTCCAAAAAAGGNCCTTTTAAAT
TTCCCGGNAATTTAACCCCCCGGTTTTCTGGAACCCCCCTTCTNGNAAAGNGGGGGG
GGGGGGGGGCCCCCCCCGGGGGNTTTAACCCCCCAAAGNNCCTTTTTTTTGGGT
TTTTCCCCCTTTTTTTTAAAGNTTGGGAAAGGGGGGTTTTAAAAAATNTTG
GGCCCGNCCCGNCTTTTTGNGGGGCCCGGT

Sequence 2398

ATTACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCTGGCAGGG
CCAGTGGCAGGAAGGGAGGGACAAGTGGACAGTGGTGTGTCTGAATTGTAGAGTGTTAGA
TTCCAGGTCATTCCCATCTGCTCAATTCATCAGCCGAGAGTTCAAGCTGTCTATCTAAG
CCCAGGGAGGTTGAAGGAACAGGCCACATCTGGTTCTTGAAGTATATGCCCAGGCATTT
AAAGCGGATCTTTCCTCTTTGGCCGATGGTGATTTCTGCTCAAGCAACCTTCATCTC
TTAAGCTTGTGTTGCTTGGAAATCTGGGACT

Sequence 2399

AGCGGCCGCCCGGGCAGGTACGCGGGGGTTGGAGACCATTGCTCTATAGCAAGACCAGAC
TTTGCCCTTCTCCTCTCAGCCTACTCAACGTGAATATAATGAGGATGAAGACCTTTGTA
ATGACCTTTTCCACATAATGAATAGCCATTGGGAGACACACTTCTGAACACCACCACTG

Table 1

GAAATCACACATGCTGAAATGGGAGAGTTCCTGACCCCCTTGCAAGGATATGTGACAGG
AGTGTGGCTCATCTGTTCAAGCTGGAGTGCATACTCAAACCCCTTATGAGACAAGGAGTAT
GCAGACAGGAAGGTGCAGGGAAGTGGGGAAGCAAAATATAAACTAGTTAA

Sequence 2400

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTTTGTAGAGATGGAGTCTTGCTGTTTTGCCAGGTTGTTTTCGAACTCCTGACC
TCAAGCAATCCTTCTGTCTCTGCCTCCAGAGTGTGGGATAACAAACATAAGCCACCAT
GCCAGCCAATCCTCAGTTATTTCTAATACTAGATAATCTAATTGCTCATTATTACAT
TATTTTCCAATTAAAGGNGNAAGATTTAGACATTAAATTTAAGTTATAAGTGTTCCTT
GAACACCTAATTGNAACTGNAACTAGAACAGGGGATCATTTGGTACTATTGGAAAGTTT
CAGGTGGATTTTAAATNATATTTTCAATC

Sequence 2401

CGTGTCTCAGATCTCAGGCTGCTCAGCTCCATGTAGGCTGTGTCTGTAGATGTGTCTC
GGTCATGGTGACTCTGCCCTGGAACCTCTGTGCGTTGATTGTTTACCATCTTCAGGATC
AAAACCTCCCTTCCACTCAAGCCCTTTCCAGGGAGCCTGTCCGCACCCAGCTGNCATGG
GATAAATTTCAAGTGAGGGGTGTTATTCCTCGGAAAACCTTTGGCAGNGNAAGACCTTCA
ACTTGGAGGGCCCCCAAGGGCTTTNTTTCACCCCTTCAAGGCCCCCAGGAACCTTGNTACC
CTTCGGGGCCCCGGCTTCTTAAGTAAACCTTAAGGTTNGGGGATTCCCCCCCCCGNGGG
GNCCCTTGCCAAAGGGGGAAAATTTTTCNGTAAATTAATTTCCAAAANGCCCTTTTAAAT
TCCCGGAANTAACCCCCGGTTTCNGGAAACNCCTTNTNTAAGGGGGGGGGGGGGGGGGCC
CCCCGGGGTTTACCCCCCAAANCCTTTTTTTTG

Sequence 2402

TCCACCGCGGTGGCGGCCGAGGTACGCGGGGAGGATTAACAGAAGCAGATTAACCTCAGA
AATCCTGTCTGGCTGGCAGATTTCAAGTAAAAAAAAGGTGGGTTGGGGGGACCCTTTT
CTTTCTAGTTGTCTTTAAGGGAAAATTAATTTACTTTTTTTTGTCTGGCCCGAAAT
TTNTATGGAGNATATCCTCNTCACCTTGCTNTCCACTTTTGAACNCGTTAAAGGCT
NCATCAGCCTGGTCCAGCTTCTGGAANTGNAGGGAGNGGGGAAGNAAGCCCCNTGGGG
GTCTTTTCTTTTGGAAAAGGNAATTCCCGCNTTGGCTTTGNAGGGGGCTTGCCCCCTCC
CTCATTGGGTGGTGGCCGTTGGTTCCGNTTTTCTTTCTTTTNCNTTGGACCCGCCATT
CNTTTTGGTTGGNATTAATTCCAAGGNAGGGGGTTTAAACCTTTATTTGTCCAAAAAA
GGCCCAATTTTNCNAAAGGGGCCCGGG

Sequence 2403

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTGTTTAATTACATTTATTTTATTGAATAATG
GATTGTCAACAGTAGTTATAAAATAGTGCATGGCTTAATGTGTTAATTATCATAAGTAGA
ATCCACAATTAAGTTTGATATTTGCTGAATACTTTCTCTGCAAGGATATAAAAATTAAT
CATCCACAACCTAATTAACCTAAATTTCAAATTAATTCACATATGNGGGTGTTTACTA
TCTTTTGTCTTTTCGGTAATGTTGGTGACATTTTAGTAATGCATTATGAACAGTTATTATA
CAATGTGAATTAATTGGGTAATACTTTAGTGTACCATGTTTAAGGAACNTTTAGTTT
A

Sequence 2404

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGATGCTGCC
ACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATATTTATAAAC
ATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTA
GAAAAACATAAGAAGAGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGTCAGCAA
TGTGATGGTGTTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGC
CAGAGAGCTTGCGACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCCTGTCTGGC
AACCTGGNAAAGAGGACCCTTTACTTAGNAAGCTAGC

Sequence 2405

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTATTATTCTTCTCTT

Table 1

TGTGTATGTTTGAAATTTTCCATTATAAAAAGGACAAAAAAGAGAGAGAAAACTAA
AAAAGAAAAATAGTGTGCGCTTGTTAGTAAACCAATCTTAAGGCCAGTTACTAAAAA
GTAAACTCCTACAATTTTGAATAGCTATTTGCTAATACAGTGATTTGCTGCCTTCTGGG
GTTAGTTTAGCCTGTCCATTCTTATTTAACTTGCTCCCTTCCCTTCCCTTTTAAATAAGT
CCTGCCAAGCTCCAGGCTCTATTTCCACCTCTCCCCTAAGATTTAGGATTTGTTCCGT
TTTAAGGTCAGTGGCCCATATGTCTTCTGTTCTCC

Sequence 2406

AATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGGACTCATACCTGAAAGCAGTGTT
CAACCTTAGCAAAATCTCCAACCAGCGCATGAACAATTTTCTACATCACAACGACCTGGT
TTTCAAATTCAGCTCTCAAGGCCAAATCTTTTCTAAATTTAACCAAGAATTCATCAGTT
CACAGAGAAAGTAATCCAGGACCGGAAGGAGTCTCTTAAGGATAAGCTAAAACAAGATAC
TACTCAGAAAAGGCGCTGGGATTTTCTGGACATACTTTTGAGTGCCAAAAGCGAAAAACAC
CAAAGATTTCTCTGAAGCAGATCTCCAGGCTTGAAGTGAAAACGTTTCATGTTGCAGGGA
CATGACACCCACATTCCAGTGCTATCTCCTG

Sequence 2407

CGCGGTGGCAGGCCGCCCGGGCAGGTACCCGTTAACTTCCAATTAAGTAGTTTTGACAAC
ATTCAAAAAGAGTNATAAACTNNGGCTTAATTTTAATAATCAANACCCCTNCTAGCCTTA
CTACTAATAATTATTACATTTTGGACTANCCACAACCTTCAACCGGCCCTACATAGGAAAAA
ATCCACCCACTTAACGAGGTGCCGGCTTTTCGTACCCCTTATTATCNCCNNGCCCNCG
GNCGGTNCCNCTTTTNCCTTCCCAATAAAAAANTNTCTTTTCTTAANGGTAAGACCTTA
ATTTAANCCCTTTTCTTTTAAATTATANTTTTNGGAATCCCTTAAGGNAAAAAATNTTG
GCNCCNCTTCCCTTTTTTTAAACCCNCCCTTTAACNNCNATTTGNAAGGNCNCNCTTT
NNCNAAAAACCAAAATCTTANAACCCCNNTNGNCCCAACCTTAANAATTAAGNGTTTT
NATNGTGTCAAATCCCCCTTCTTTTAAATTTTAAAAA

Sequence 2408

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGCTCTCACT
GCTCCCAAAATGGCGGACGCAATTCGGAGATGAGCTGTTACGCGTGTTGAGGGGCGACTC
GACCACTGCGGCGGGAACCAAAAAGACAAGGAAAAGGACAAGGGGAAATGGAAGGGGCCT
CCAGGGTCTGCAGACAAGGCAGGGTAAGGAAGAAAGTTCCAGTTGTTGCTTTTATTTTTT
TCTCGGTGGGGAGGAAGAAAACACTACTCTCTTAGGAAGAGCACCGAGAAAGTGAAGTG
ACCTGCCCG

Sequence 2409

TANCACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCGGGCGAGGTACT
TTTTTTTTTTTTTTTTTTTTTCTTTTNAATGCTGTTCACTGCTACCCATTTAGTCAA
CTTGGACCACCCTNTANAGGGGCTTCAACTGTTATTTTCAATACATTGTCACAGGGACAN
AGGAGGGTGTAGGGAACTNTGTGACTAAAGAGTTTTCCATAAATGGGTGGACCTCANTT
TACAAGCATTAAATTTATTGGGCCAGGAGGGGAACANATCATGATTAGGAGAGTGAAAA
NAAAGATGACAAATCACTTTAAGTCANACAAACCTTTTNTNTACCTCGGC

Sequence 2410

GTTTACCCGNCCGGGGGGGGGNGGAAAACCATATNGTTGGTTGGTCCTNTTAGGGAACCCC
TTGGTACCCGNCTTGGGGGGNAAGGGGGAAGGAATTGGCCATGGGCCCAACGCCTTAA
GGGTGGTTTAACCAATTGTNGGTGATGGGGGAACCCCTTTAATTANCCGGGGGCAAAAA
CACNTANACTTTTTTGTCTCNANGGNGCAAACCTTAAATTTTCTAAATTTAANAACCA
ATTNCTCCTTGCCATGGGNANAAAAANTGGGAAGCTACCTTAATNATTTGGTTCCANGG
CAAAANTAACCAACCAATTNTTTTCCACCCCAACCCCTTTTGNCCCCCAAAAAACCAA
GGTTAATGNAAAAAAAAACCAATTTANATNGGAAAAAGGNAAAGGAAAAANAACATANC
CACTTTTATAANAAAAAANATTTGGNAACCCAAAANGGTGGGAAAAAGGATTTAAANAT
TTGGGGGGAAAAAGGCCCAAAATTNGTGTGAAATTGGGGGTGTTTTTTTAGGGGGA
AGGNGGGTGGNGGCAAGNCCNCTTTTCAAAGGAAAAAGGGGTNATAATTTTAAAA

Table 1

AATTGGCCCCNCCCTTTTNGGTTATAAAGGAAAAAGGGAAAGGGGGCCCCCAAGAAAAGN
AAGGCCCTTTTGGGCGGCCAACCCCTTTTNCCTTTTCCCCTTGGGCCCCATTTNGTTT
GGNAAGGGGGNAAGGCCCCCAAAAAGGNAAAAAGNCCNCCGGGGGCTTTGNNTTCCTTT
GGCCCAAANCCCTTTGGNCCNTAANGGAAGGGGGGACCCCC

Sequence 2411

CCGCGGTGGCGGCCGCCGGGCAGGTACTTTACTCACCTTCCTCTGACAGAAAAGGATG
AAGTCAAGGGCCTGGTAGAGGCACCACTAAGAAAGGCATCTGAAAGGACCAAGAGAGTG
ACCAGCAAGCATTTTTTGAAGGCTGAGGAGCTGACAGCTTCCATGAAAGGCTGGACCAC
CCAGTGGTGAAAAGCATCATCTGGGTTACCTTGCTGCTGCCATAAAACACACCACAGACTT
GGTGACTTAAACCACAGATATTTATCTTCTCACAATCCTGGAGGCTGGGAAGTCTGCAAT
CACCGGGTGCCCAGCCATGGGTCAGGTTCTGGGTGAGGGCCCTTTCTTCTCACCTGT
GTGCTCTT

Sequence 2412

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTATTCTTTGGGCAGCTAAAATCTAGGATGGTGTTAAGTTTCTTCATTTGTCA
ATTATATATAAAAAATTAGAAACAACATGAATCTGCATTTCTTGGATGAGATAGTTAATA
ACAAACTATTTCTCAATATTTGTATACTAAAACTAGTGAAGGNGTTATGTGTTTCAGTA
TCTTATCTCTTATTTGAACATGGGTTTCTGAAAGGAGCCTATNTAATAATATAAATGGTA
TGATAGTAAATGAGGGCACTGTCTTGGCTGGGACTGGCTATTAANAAAAANATTACCATT
G

Sequence 2413

TTTTTTTTTTTTTTTTTGCTTTTCTTCTTCTTCCCTTTCAGGCATCTCCTCGTTTTA
TTTTCTGTAACCTCACAGAGTGCTGCAAAATAATGTTAGGGCTTTCAGTTTATTCCTTGC
GATTTAACTGCATAAATATAAAAAGTGCTGAGCAATAATGCACGTTGGGTTATTCAATA
ACACAAGGAATGTAAAGCCGATTTTCATATCTCCTTGAATCAGGAACNTTAATTAATCATA
TGATGAGAATGCNACGTTTTNTTTACCANGGNCAGGAGGCTGCCAAGAANCTTTCTGAG
GTTAATAATTCACCCNCTNTGGAGGGGAGGGAAAAAT

Sequence 2414

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTTGGGCAATACCAGCTTTCACCCTGTCTCTGCACTGCTTAGCC
TTGGCTCTGCTGAGTTGNGCAACACATTCTGAGAGATGCCATACAATGCTCCAGGCAAA
TTATAGAAAAACAGGAATGAGTGATTTTATACGGGATGTGTTTCAGCTGTCCAATTCAAA
ATAAATCACGTCCAGCTGCATTCTTTCCTAATTTGNGACCCAACTGNTTGCACCTTTATA
CATTAAATGAATTATTTTTTAAAAAAGGAAATTAGCCTCTATCATGGAAANACAGTGGCT
NTCTAACCCCTTTGNGGGTCCTTTCTCCCTTTAAAAAGGC

Sequence 2415

CGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATAGTTCACAT
TTTTTGAAGAATTCACAAAAGAAGAAAAGGAAATCTAATCTAAAAATACTATTTT
GGAGGGGATAGCAGATTGAAAATGAGAATTTTGAAAGTTTCAATACCAGTGGGGAAAGCA
TTTGCTAGAGTTTGAAGGACAGCATATGGTACACCAGATCACGAGACATCGTTTCATAC
TTCCCAAATAGTTTTATATTTAGCTTTGAAGGTCAGTTACCAGAGCCAACTTGTTCTT
ACAAGCAGAATTTTATGTCCATTCAAAGAGTCTCTTACACCTTTCTGGGCCTATTCACT
TGCAGAGAGGAGTCGAAACTGTAACCAG

Sequence 2416

ATANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTNTTTTNTTTTTTTTTT
TTTTTTTTTACTACTTTCTTCTTTCTTATTTTCTCATTGGCCTCAGGTCTTGAATATCT
TGAATTCAAACTAATAATTCACCTCCTTCTCAGCACTCTCAATATAGTCTTTTGCCAACA
CCTGATGAGACATATAACTTATGACCATTGCATTCTNTTTTTTCCATGGTTTGCATT
ANGAGGTAATTTTCTTCAGCTATTANAGCATATCCTTCCTCATNATTTTANANAAATACT

Table 1

TGGTCAAATGACCTTTTAAATAAAAAGATGGTTCTTACCTTCTAATTTTCCACTTATTTTA

Sequence 2417

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTTTNCAAATGTGACAGGCATTTATTTTAACAGAGAGGAAGGGGAAGACAAAATATC
ATAAAATGTGTGGGTTTTCCCANATGACTCTGTTGAAAAAACCAGGAAATGCAGAGCGG
GGGGACAAATGGAGGAGAGATNTTAACTAGAACATTGCTGACTCAAGGCCGTCCAGCTTC
AGNGGGAGTTCTGATTAGGCCCATGTNTGCTGATGCCACCTGCAAC

Sequence 2418

CCGCGGTGGCGGCCGAGGTACGCGGGGACGCTGGGAGGAGATGCTGCCACCTAGGTTACT
TGTAGGACCTATACGGCAACCTCCTTTGCCAGGAACCTTTATAAACATCCTGCAGGAA
AATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAG
AAGAGAAAAACATTAAAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTT
TGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGC
GCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGGAGG
ACCCTCACTAGAAGCTAAGCCCA

Sequence 2419

CCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGGGCAGTGGAAGCTCGCAGCAGCTGGG
GAGGAGCCAAAGCCTCGGCGCTCACCTAAGCCGCAGGGAGATACACCCAACTGGGAGATG
AGGAAACAGCAACCCAGAGAGGAGAACTAACCCACACAGGATCATTTCCGGAAGGAGCAA
GGCTGAAGAACCAGACCTGGACTTTCTTAGGACAACTTACTGCAGCTTGAAGGAGCCAA
CCATGGATTTGAGGCGTGTGAAGGAATATTTCTCCTGGCTCTACTATCAATACCAAATCA
TTAGCTGCTGTGGCTTGTGTTTAGAAGCCCTGGGAGCCGATCTATGTTTAACACCCATCTT
TACTAAACCATTATT

Sequence 2420

TGGGGTAAGNCTTCTCANCTCCGTCCGNGNTTGGGTCAGGGTCTCCGTCTCNCCGGGGG
TCCANGGGTTTACCCGTCCGGGGGGGGNNACCNTTGGTACCCGCTTGGGGGGTAGGG
GTAAGTAATGGCCTTGGTCNCCACCCCTTTAAGGGGTNTAACCTTNTGGGTTANGGGGAA
CCNCCCTTAATTACCCGGGGGCNAAGGCTCCTTCNCCTTTTTGGGGCNCCAAGGGGNAAA
ACCTTAAATNTTTATTNANAAACCAATTTCCCCTGGGCCAAGGGGGAAAAAAATTTGG
CCAAGGTGGGANAAGGTTANGGTAAAAGGGAAGGTAACCAANGGGGGGGTAATNAATTC
CTCCCAAAGNANAAGGGGGTTNTANTTTGGCCCAAATANTACCCAAATTTCTAATAN
GNGAAGNAAAAAGGNAATTTGAAAGGGAAGGGGGNAAGGTTCCCTTNAATTTAATTGGGT
TTCCAAGGGAATAAANCCAACCCAAATTTTTTTTTCNNCCCCAAACCCCTNTTTGG
GCCCCCCCCAAAAACCAAGGGTTGAANGNTAAAAANAANAACCCCAATTTTTNTNN
NNNACNACAANNACNATATAATATCATNANAAGAATAANATNATTATCACATNANNACAA
TNANGAGAANAATAATNANAANGANNNGGGNTTNTCCCCCTTNGGGGGNCCCCCGGN
CTTTTTCCNTTTAAANAGAAAAACCCCTTTAAGGGGNGGTGGGGGGGAATTNNCCCCC
CCCCCCCCNNGGGGGGGGCCCTTTGGTCCCAAAGGGGGGGNAAAAATTTTTCCGNNNA
ATTTNNTTTCNAAAAAGGNCCTTTTTTATTTCCGGGGAATNTAANCCCCCNGGTTT
NNGNGAAACCCCTTCTTTAAAGGGGGGGGGGGGGGGG

Sequence 2421

TGGGGNCCGGNGTCCGNCTTGCTTTTGCNCCGGCNTGTGCCCTTGCGGGGCTTGCAACC
NTGGNNACATTCNGGCTTGGNCGTCTTTCNGGGGTNTCTGTTNTACNGAGACCTTGGGCN
GTGGTCCGTAAGTCCGNGNTTATTNCAANGACATNCAACCTNCAANATAGGGGGCCGG
GGGCTAANAATTAACCGGGGGGTTTTAATTTCTCCAACCAAAGGGAATTCCAAAGGGG
GGGGGNAATTTAAAAACCGGCCAAAGGGGNAAAAAAGGAAANCCAATTGGGTTNGNA
AAGGCCAANAANAAGGNGGGCCCCCAAGGCCNANNATAANAANGNGGGCNCCAATGNN
GTAAANANCCCCGGGTTTANNAAAAAAANAAGNGGNCCCCCGCCNGGTTTNTGGNCN

Table 1

TTTGGGGTCCCGGTTTNTTTTTTTTCCCAAAATTAAGANGGGCCNTTCTCCCGGTC
TCNCCGCTCCTCCTTNGGNAACCGGNAAGGNCCCANTTTNCNAATCCAAAAAAAAAAN
AAATTCGGGGAAACCCGGGCCTTTCNAANAAAGN TTCNAANNNGTGAAAGGGGGNTTGG
GGGGGCCCGGGNAANAAANAACCCCCCGGTAACCCCAAGGGGGGGAAACCTTTAAATT
TNATAANAAAGGGGAAATTAAACCCCAAANGGGGGGCCCGGGTTTTTTTTTCNCCCCCCC
NCTTTGGGGGGGNAAAAAAGNCCCTTTCNCCCCCCTTCCGGGTTGGGGCCCGGCCCTTT
CTTTCNCCCTTGGTTNTTCCCCGGAACCCCCCNTTTGNGCNCCGGNCTTTTTTACCNC
CCGGGGGTAATTNACCCCTTGGTTTCCCCGGGGNCCTTTTTNCNTTCCCCCCTTTTTT
GGGGGGG

Sequence 2422

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTCAGAGTGCACAATGTAAGAAG
TCACTCACTCTTGGGCATGCGCTAGTTTCAGGGTTGGCAGCGACAGTGAGTGCCTTCTTAC
ATTTTGCACCCTGGATACCTTCTTGCCTCACCCCTAGACTGGCCCAGATGTC TAGTCTAC
AGNTCACNCTTATCACTTGCAATTTCTATTTCAATGACTACACTTTTNACTTCCAAGGT
TCTATATTTTAATCCCTATCTATTNTAAGAATTCTTTGTTCCCCCTCCCTCTTTACTN
ATTTGATGATTCAAGAATNC

Sequence 2423

CCGCGGTGGCGGCCCGAGGTACTTTTTTTTTTTTTTTTTTTTAACTGCAACAACC
TAACAGGAAAACTAATCAGAGATCATGAGGAGAGTGGTATATCAGTCAGGGACTAATCAG
GAACATAATCCACTTGAGAATTTAAAAATAGAGAGGGCTTAGGCTGGGGAGTTGGTGACAG
CATAATGGGAAATCTACAAAGCAACAGGAATAGGGAGACAACCCAGGCCCATNTAGGC
TGGCAGAGCTCATCTNTAGGCTGGAAGGTCAAANAAGGTGGTGTTAGTGAGCCAGG
AGATGCACAGTCTCCCAGGGGAAGCTGGAGCTAGGGTGTACCTGCCCG

Sequence 2424

ATTATTTTGATTTTATATCTGAGTATGTTTNTAGCCAGAAGAGGAGAAGAAAGAGGTAA
AAAGCAAAAACAGAATTTATAGATGCACGATATTCTTCTGAACAAGAGAAAGAACTGGT
AGGAAAATTTATTTTAAAAAGTGTGAAGGGAAAGAATCAAGACCACAGATCCAGATCCG
GAGATTATTTTCTAAAGAATAGCAATTGTGAGGCACTGAGGTGGGAGGGGGGAAGAAGCT
ATGAACTTAATTTTGAGGTTTCTGAATAAGGAAACTTGAGTAAATCACTTCAGATGCAT
TTGGAATGTTNGCACTCCAGAAGATNANATTGTGTGTGCTCTGGAGAGTATTGGAAGA

Sequence 2425

[illegible]

Sequence 2426

CCGCGGTGGCGGCCGAGGTACGCGGGGGATGTGGGAGGATTGCATTAGTCTAGTTCCTG
GTTGCCGGCTGAAATAACCTGAATTC AAGCCAGGAAGAAGCAGCAATCTGTCTTCTGGAT
TAAAACTGAAGATCAACCTACTTTCAACTTACTAAGAAAGGTATTAAGCGCCTTTCTGAG

Table 1

AGCTCTCAGTGGGCTTCCTAAGCACGTTCACTCTGCCTCCTTTAAGTCTTATATTTATGA
TCAAGATGAAAGGGAGGGATGTATCACTGCACAGAGATTCTACAAGTGGATATATAAAGC
TAATAATGTTTTCAGTGAGCTCTTCTCTGGCACTACTTTCCAAGTGCTTTCAGCATTCC
ACCTTGAAGCACAACGTTAATAATGCACAATTTCTTATGTTTCAGCCACAGAATGTTACAG
TGTGATTTGGTTACAACATATTGCTCTATCCAGGCCTCTAACAAAACGACCTCTTCAA
ATGGACTTGCAGTTGCTGAATTCCAAATCAACACTTTATCTTAAAAACAGAAAANGAAGG
GAANGGTGGANGGAGGGGAACAAGAAANGGTCCTGNCCG

Sequence 2427

CCGCGGTGGCGGCCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTCTTAATAA
GTGAGGCCAAGTGCTGTGTGTAAGTGTGGGGTGGGCAAAATTAGGATTCCTGAATCACTT
CACTTTTGTGCTTTCTCTTGGGAGAATGGTTACCATTGCAGAGAAGCATAGTTAAAA
TTGCTTTTGTGTTTCATAAACGAATTCATACTTAGATGTCATTGACCAACAACTAAATAG
TATATCAGAGATGAAAGGCATCCTAGGGATGACCAATCAAGCTCTTCATTACTCAAAGG
AGAAAAAATCCAGAAAGTGGATGACATATGTTGAACTAGTGATGGAAGTAGAACAGGGT
AGTGATTTTTCTGCCTCTTAATTCCTTCTTTTACACTAAACCANATATTAGGTATATG
ACTAGGAAGATCGTGAGGTAAGGAGCAAAGGGTTTGGC

Sequence 2428

CGCGGTGGCGGCCGAGGTACGCGGGGGAGTCTGATCTGTCCCGGCCAGTGTCCTCCAGG
ACCTGGCCCCCTCATGCCTNCGTGCTTGCGCGTGTGCCATTTCTCTCTCCAGAGGACCT
TTCCTGCCTAGGACTCATCATTGTCCCTCCCTGGCATTTTTTACACCTGGAGCAGCCAG
AGGACGCATGCATGGCTCTTCNGAAGCCTTCTCCTGCCACGGCATGCACCCACACATGCG
AGCCTCCCGGGTACCTGCCCC

Sequence 2429

CGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGAACTTGTGTGCTTAGACCTGACGCTGG
GAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCCTATACGGCAACCTCCTTTGCCAGG
AACTATTTATAAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACATTTCCAC
CTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAAAAAATGACAAGGAAGTTA
ATGGAAGCAATGTGATGGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGT
AAGAAGAGGCCAGAGAGCTTGCGCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGG
CTGTCTGCAACCTGCAAGAGGACCCTCACTAGAAGCTAGCCATACTGGCATCCTCATCTT
GGCTTT

Sequence 2430

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCGGGCAGGTACCACAC
ACACACAGGCACACGCAGGCACACACGCAGACACACACACATAAACACACAGAGTTCA
CTAGTCCGAGTTACTGATTTTCTTAGGATTCTCAAAGTGACAACACCGGAAACAAGGTAA
TTCATGTTAAAAACACAAGGGTTATATCAGTAAGAGATGGGATCCCCGAAGTAAACCGTGG
AATTTGAATCAAGTTTCGAAGAGCTAAAAAAGAAATTGGAGTTTCAACATTACCTTCT
TGAATCCTTAAGAAATACAGAAGTTCAAAATAGAAAACATTACAGTTTCAGGATACAAAA
GTAGAAACATCTGAGATTAAGCCTACATTTTAAAAAAGATATTGAAATTACTGTGCT
TGTAATACCAGCTTTTCAAACATCAATACCAGTATTGGCATTACCTAGATCAAATCTTTT
CATCAAAGTTGAAAAAATAAAGCATTGGGGATAGAAGGACCATCAAATGTCCAATATT
GAAATATTGGTCTTTGCATAGTTCCATTAAAAAATTTACCTGCTCTCAATGGTTGGTCAT
TCTTCAATTTCAANGGCTTTATTTGGAACAGACTTTTGCATTTTCAATGGCAGGCTTAAT
GGGGGTGGG

Sequence 2431

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTT
TTTTTTTTTGTGTGTAGCCTTGGGTAAACACACATCCTTCTGTGAAACAGTCTCACAG
AGACTCTCAGAATCCCAAGAATTTCTTCAACGTTCTTTTGTGTTTGAAGGGAAC
ATCTGATCTATAAAGGTTAATCACAGATACATTCATGAGAACATTTCTCCACTATACAT

Table 1

TTTAAAAACATATACAAATCTACTTTTCATTACGAATCTGTGGTTCCTCCTCTGTAGCCC
 GTATATTCTTTTGTGATTACAATGACTACTTCCTATAGTCAATCCGTTAGAATTGAAA
 TCTGAAAAGTCTGAAAATTAACATTATTTTCATTAGAATGCACAAAAATATAAATTTGACT
 AACTTCTATGAATTATTTCTTCACAAAGCAGTCACATACTCTTCTACTCTGAAACAAGGT
 ATATCCTATATTTCTGTNCATTANAAAACTTTAATTACCTACCATCTCTCATTTCTTT
 GGAAATTTTT

Sequence 2432

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTTNNCGNAAANACCACAAACCACCTNTGAAG
 CCAAGAAAAAGACGNGATTAGAGGGAAACACATCAGNACCTTTANTCCTCCACTGACTTT
 GGAAAAACAACAAATGCCAGCTCCACCANATCATTTNTTCTTAATTAAGTTAGCCA
 GATTCCTTTGGAGCACTCAATTTTCTGGTCAGGTCAACAAAAAGTAATAAACATCACAC
 ACACCTCCCTCCCTGTCTTCTAGCCCCATTCTGGAGTTATGCAACCTTGGGGGCGG
 CATACACTTCAGCTATTNGCTCTGNGTTCATAATTAGATTGNCTAGACAGGANATGTTGC
 TGGAGCAATAGG

Sequence 2433

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTCTTCTAATTGATC
 ATATCTGCTTATTTTCTCTGGATTAAGGATCAAGGAGATAGTATATTAGATGATTTGAT
 AAATTTCCAATGCTTTGCAAAGTAGTTGAACAACTTTTCTTTGTGATGCTAGGTGGCAC
 TACTAGTCAAGACTTGGTATTTTCATAGCTGGCTTTCTTATTCTGAAGGTTGTAAGGAC
 ATATGAAGTAATTTAACATTGAAACATGATAATCAATTTGATTATCTATGAATTGTC
 CTAACGTTTCAGAGTAAAGTTTCTTTAAAGTTAAATCTTTCAAGTGAAGGAAATTATA
 AAGTCACATGTAAACACCAAAATAAGAGGAATAGAGCAATAGGATATTTTGGCTTTATA
 ATTCAATTTAAAAATTAAGGTGCATTTATTTTTTTGGCNGCTGGCCATAAAGCTTCAATG
 TCCAGTAAGCAGTTGCTATCTATGATTCATGAAGATCATGGGGGGTTCCC

Sequence 2434

CGCCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTGATGCTATTACTGAATAACTCTTTC
 TGAGATGGTTGTTGTATAGTAAACCATGAGTCTGGCATGTCTAAAATTGTCTTCATTTCT
 TTCCATAAATTTGAATGTTTTGCTGTGTAAGTCATTCAAAGTTGAAGACAATGTCCCATC
 TTTTGACAGAAAGGGAAGGAAGGATATGTGCTCAGCCTGCCAGTTTGACCCACTTTTGAA
 AAGGGCTTTGTTGCTCTACCAATGAGAAGTCTGGTGTCAATGTGATTTTCTTAACTTTA
 TAGGAATTGTTTGTTCCTCTTTTCTGAAAACCTGTGCTTTCATCAGGCTCTACCAGCC
 TTGATACTCTGTCACTCACTGGGCATGGNATTTGCACCATCCTTTTCAT

Sequence 2435

CGCGGTGGCGGCCGAGGTACTAGACGGGGCTGTAATCTGGTAAGTGTATGATTTTAGTT
 CTTCACTCCCTGGGAAGGAGACAGGAGAAGGTGGGAGGGAGGAAGGGGCCAGCTGAAATG
 GAAACAGATCCCTGATCCGGGGCGGCAGTGAACCCCTTCTTGGTGTGCGAGAGCCTGTGC
 ATTTGAGAGGCAGCAAAAAAGTAAAAAAAAAAAAAATTGATCTTTGTTTAGATTAAACAGA
 CCCCTGACTATGAAGAAGGAAGGCATCCAGACCAGAAACCGAAAAATGTCTAGCAAATCC
 AAAAAGTGCAAAAAAGTGCATGACTCACTGGAGGACTTCCCAAGAACAGCTCGTTTAAC
 CCGGCCG

Sequence 2436

GACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGAGGATCTG
 AAACCTTTGGCGACCAAAAGTCTGATTTGCGTGAGGCACACCAGTTCACACTAGTTGTCT
 AGGTTTAATAATTAATGCTTCTTTTCATTCTCAAAAGAGCCCTGATTTAGACAATA
 AATTATATGGTCACCCTACCTATAGCCAGATATTTCTGCACCAAAATGCCTCGATTTGGT
 GGGTGGCTTTAATTAAGGAAGAATGCTTTAAGTTTATGACATAACTCTGTTGTTCTTGT
 CAGGAAGTGATATGTATAAACTATTAATTCATCAGATTATATAAGGAGATAGGGTGC
 ACTTAAATGCTAGGAAGTTGAGATCTCTAGTTGTTAAGTTGGAAGTAATTGAAGTAA
 CAGTTGGACAAGCTGTCATGATGGACATAGTAGAAGTGCCTTTTAATTAA

Table 1

Sequence 2437

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCGGAGGTACACCATCCCCAAGGACA
CGGAAGTATTTCTCATCCTGAGCACTGCTCTCCGTGACCCACACTACTTTGAAAAACAG
ACGCCCTTCAATCCTGACCACTTTCTGGATGCCAATGGGGCACTGAAAAAGAATGAAGCTT
TTATCCCCTTCTCCTTAGGTAAGCTGGACCCACAGTTTCTTTCCAGACACCAGAGGGCA
GGTCTATCCTCAACTTGAGAAAAAAATGACAGGTCCTTATTAATTGAGCACTTAATAT
ATTCCAATTGCTTCACCTGCCTTATCCCCTTCCATCTTCACTACAACCCTGTAAGGAGGC
TTGAGAAAAGAAGATTACATTCCCAAGGCACATCTGGGCAAGCAGGAACCTGGGCAAGTA
TTTAAACATCTCTAAACCTCAGTGAATTCATTTTCTTAAAAAGAAAAAATCTGTTGAGC
ACCGNTGTAAGCCCAGTGCTGTACCTCGGCCGCTCTAGAACTAAGTGGATCCCC

Sequence 2438

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTGGCTGATATTGAGCCATAG
AGCCAAGAAGATTGCTAATTTGAAGTGTGCTTGGTCGGGCTTTCTACTGATGATGTTGC
TATTGATTCAAACAGTCACAAGTCTTTAGGATCATTTTTAGAGCAATGGCAAGAGTAGGG
CTGAAATGAAATCAGTCTGAGATAATGAACACTCCTGCTCAGAGATCATTATGGGCTGAC
GCTGTGCTGGGAAGGCACTGAGCCTTGGGGGGCTAACACTTGCCTCAGTGGAGTTAGCAC
TCAGTAACCAGGCAATCACCTCGATCCAAGGCTTTCAACTCTCGTGGAATATCTGTCAGT
TTGTCAGTTCAGCAAATAACAAGTGTGTTGTTGNTTCTTTTTGNTTCCCCCGGAACA
TGGACTTTTAAACAGCTTAATTAACAACTATGGCACTTTTCTGTTGTTGAGTTTGA
GGCAAAGACCACTGGGTAGTTGGTGAGAAGCTTATNAAACAGCTTGCTTCTCCTGAGG
GGGGAAGGCTAACNTCCATGGGGGTATGGGAC

Sequence 2439

CCCGGGCAGGTACGCGGNGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCCTATAC
GGCAACCTCCTTTGCCAGGAATATTTATAACATCCTGCAGGAAATGAGTCTATATGT
CAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAAGAGAAAAACATTAA
AAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTTGGAGGTGGAGCCTTC
AGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGCACCTTCTCCTGCC
ATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACCCTCACTAGAAGCTA
GCCATACTGGCATCCTCATCTTGGCTTTCCAACCTCCAGAAGTGTGAGAAGTATATGTTT
GTGGGTAAAGTCAATGGTCTATGGTAATTTTTTATAGCAGTCCCAGCCAAAGACAGTGC
CTNATTTACTACATACCATTTATATTATATAGGCTCCTTTCAGAAACCCATGTTCAA
ATAAGAGATAAGGATACTGAAACACATAACACCTTTCAGTAGTTTTAGTATACAAATA
TTGGAGAAATAGGTTGGTATTAATCTCATNCAAGAAATGCCANATTCATGGTGGTTC
TAATTTTTTATATATTAATTGACAAAATGAAAAAACTTAACCCATNCTAGATTTTAGCT
GCCCAAGGAATGAAAAGAATNAAAAAAATTTTT

Sequence 2440

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGGAGGTACAGGAAGAAGTTCCTTGT
GCTATTTCTCACAATTTTTCTTTAAGTTTGAAACTATTTCAAATGAAGTTATATACTA
CATGAATTGTGAGTTAAATGCAAGCAAGATCTTCATGCCTGTAATCCCAGCACTTTGGG
AGGCTGAGGCAGGAGGACTGTTTGAGCCTAGGAGTTTGAGAACAGCCTGGGCAACATAGT
GAGACCCTCATCTCTACAAAAATTTAAAAAATTAGCCAGGCATGGTGGCTCGTGACTAT
AGTCCCAGCTACTCAGGAAATGGAGGTAGGATGATCCCTTGAGCCCAAGAGGTGAAGGCT
GCAGCAAGCTGTGATCACATCACTATATCCAGCCTGGATGATAGAGTGAAACCCCTGTCT
CAAAAAACAAATAAAGCCTAAGGGAATATGCAGATTAATGGAAGAGAAGGCTATTTGTGC
AGACAGGAAACAGATGAAAGACAATTTGACTTTTAAACTATGAGTAAGGCTCATGCCTA
TAATCCCAGCACTTTGGGAGGGCAAGGTGTGAGGACTGCTTGAGCCCAAGAGTTCGAGAC
CAGCCCTGGCAAAACAGTGAGACCCTATTTCTATNAAACATTTAAATATTAACCAGGTG
TGTAATGTGCACCTGTGATCCCCAGCGACTCGGAACCTGANGGGGGGAAGAATGCTTG
AGCCCTGGGANGGCAAAGGCTTGCAATGGGNCCGAATNATGCCACTTGANTCTTGGNCT

Table 1

NGGGGACAAAACCAAGACCCCTTGNTTAAAAGAAAAAAGAAAAAAGCC

Sequence 2441

ATAGGGCGAATNGGAGCTCCACCCGCGGTGGCGGCCGCCGGGCAGGTACACATGTCCAA
GGTCAGGTCTCTGGGTGGTAAAGGTAAATACAAATTGGAAGGGCACTGTGTGAGCCAAAAT
GAGTCAGATTAGTCATGATTCATTTCCAGTTTGGGTTTTGGGTGGTCTTGAGAATGTTG
TAAGCACTGCTTCATTGATAGGTTGATTGAGCCAGACTTTACTCAGCAGCCTGAAAAAGG
AGAGATGGGCTCTGGGTTCACCTTTGCTCACTGGTAAGTTGCTAAGATTTCAAGCCTTGC
CCTCAAACCCTGAAGTAGTCCTTCATTACACAGTGGGATCACTCGAAAATGTCAGATGG
GGAAGTCCATAGGTTGTTACTTTAAAGAAAATAGAAAAATGCTGGAAAAGGTTTCTTCA
ATTTTAATACCCATGAAGGCCCATGTTTAGCTTTCTCCGATGGGCAAACCATACACTA
ACTTGGGCCTTGTAATCAACAAGCAAGGCTAAAAGCTCTCTAAGTGCTTGCTGTTTAAAC
TATTTTGTGTTGGAAGAAGAGTTGAAAAGAGGCAGTGTGGAGGTGAGGGGAGAAAAGTNC
CTNCCTCNAT

Sequence 2442

CCGCGGTGGCGGCCCGAGGTACGCGGGAAGGAGATGCTGCCACCTAGGTTACTTGTAGGA
CCCTATACGGCAACCTCCTTTGCCAGGAACCTATTTATAAACATCCTGCAGGAAAATGCAG
TGAAGTAGAAGAGACAGGGATATCCCAGAAGGTTATGCAAAACATCAAGAGAAGATGAGA
GGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAACATAAGAA
GAGAAAAACATTAAAAATGACAAGGAAGTTAATGGAAGTCAGCAATGTGATGGTGTGTTG
GAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGTGC
ACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCTGCAAGAGGACC
CTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGGCTTTCCAACCTCCAGAAGCTGTG
AGAAGTATATGTTTGTGGTTTAGTCAATGGGTCTATGGTAATTTTTTTATAGCAGTCCCA
GCCAAAGACAGTGCCTCATTTACTACATACCATTTATATTATTATAT

Sequence 2443

CCGCGGTGGCGGCCCGAGGTACTTGCAAGAAACCTCAGGACTTGAGTAACAGCAACATGG
TTCTTCTGAGCTATGAAGGGGCCAGATTTAAGGGCTATTTTTGACACCCTAAATGTGCT
GAGACAAGTCATTAAGGTGGTCTGCCAGGACACAGCCATCTAAAGCAGCAATCTGCTTC
TTGCCAGAAAATCTCGTGCCTCTGCAGAGCCTTTTCCAGAATGAACCACACCATGCTGAG
GAAAGGAGAAAGAGACCACCTACTGCATTTCTGTCACTCGCTGAAAAGGACACTCTGTCA
GAAAATCTTCTAGCAAACTTCAAAGGGCAAAATCACCCCTTGTTACTGATAAAGCCAGA
GAGCTTCAGCAGCTAACATTCCTTGACAGGGGCACAGCAAGGATTTGAACCTAGGTCAAG
TCTGGCCAGAACACCCACAAGCTTTCTTAACCTCAGTGTGCTATCTCCCCACGACTAGGT
CACTACTGCTTTATAATCACCTTTGTAGCCACCAAGTGGATTT

Sequence 2444

GGTACATATTCTTACTTCTTGTGTAGGAGGCAAAAGGTATCTGCAGGGCTCTGGGCTTGC
TAACCAAACCGTTAATCGCTTAGAAACAGCANGANNNTNNACTAGTGAGATGTTTATCACA
TACCTGGACACGAGTTGACTTTCTGTGAGACATCATTCTGGAATGAAAGCCAAAATCTCT
CTGCTATTCAGTTGAGGCTGAAAAACAATCACATCAGAATTAGTAAGGCCCATNACAAN
GAGAGAGAAATGAAAACAAGCCAGTATTCAATGGGGCTAGGGGGAAAATTACCTGGGCTT
CAGGAATTCAGGAGAGTTGGGGTTTTGAGAAGGTAAAAAGTGGGCCAAGTGCAGGTGGCT
CAAGCTTGTAATCCCAGCACTTTGGAACGCCAAGGCAGGTGGATCACGAGCTCAAGAGAT
TGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAACACAAAATTAGCC
CGGG

Sequence 2445

CTNCCCGCGGTGGCGGCCCGAGGTACGCGGGTTTCTCAACATGGCTGCGCCCTTGTGAG
TGGAGGTGGAGTTCGGGTGAGTCACAGAGCTGGGGCGCCGTGGGGATGGAT

Sequence 2446

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTAAACAAAACATAAAATAAA

Table 1

AAGTCAAAAATTGGAGATGAAATGTATGTTTTGAAACACATTATTTTGGATCTTAAAGA
 TTTCCATGATATTTTTGAAGGTGAATATTAATGATGTCTCTTTTTCTGTCTCATT
 CCAAAGAACCATAAAAAAGCAAATTAACAGTGATGAAACAAAACGCTTACAGGTTTGT
 ATCTCAGTGCATCTCTGTAGGATCCAAACAAAGCAGCCTGTGCTCTAAGAAAGGCCCTAG
 CTA CTCCATCACCCGTAGCTGTAGACTGCTTCTCAAGTTTATTTTTCAAGGCCCGCGG
 TACCTGCCCG

Sequence 2447

AGGGCGGCCCGCCGGGCGAGGTACGCGGGAGAAACCGTCTGAACTATCCTACCCGCCATCA
 TCCTAGTCCTCATCGCCCTCCCATCCCTACCGCATCCTTTACATAACAGACTNAGGTCAA
 CTATCCCTCCCTTACCCATTCAAATCAAATTGGCACACCCAAATGGGTACCTGGAATCT
 AATTTATTTTCAAAAATATTTTCCACCTGCCAAGCCTTTGGTAATGAAGTGGTNTTT
 CNTGGATTGCCAAAATTANTGGGTTGGAAATAAGGTTGGGCCGGAACCTTCATTNTTAA
 AACCTTGGGGGGCCTTAAAAATTAATTCCTCTTTTGGAAACCAAGNCCTTTTTTTTA
 ANTACNTGGGNCNCCTNCCTTTCTCNAAAGNGTAATTNTNTNTNTTAAGNNTTCTTAC
 NTTTTTAANGNCCNTTTNCTTTGNTTGGGGNCNCCAAATTTGTTCTTTGGGGTAAGGGG
 NAAANCCTTTGTAANGGNANTTGGGGGAATTTTT

Sequence 2448

GGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGCGGCTTCTAGCTTTAC
 GATGGCAACAAGTATGGCGGCTGCTAGTGGTAGATTTGAAAGTGCGAAGAGTATCNAAGA
 GCGGAAAGAACAGACCCGGAATGCCAGGGCCGAGGTGTTGCGCCAGGCTAAAGCCAATTT
 TGA AAAAAANAAGAAAGGCGTAAGAACCTAANCAGACTTCGGGGTGAGGATACATGGATGC
 TACCTGATGTGAATGANAGAATTGAACAGTTCTCACAGGAACACNTCTGTGAANAAANAA
 GAAAGAAAAAATGACCNAGCTTTTCAAAAAAAGCNATGGAAANGGAAAAA

Sequence 2449

CGAGGTACTTACCTACACAAGTTTTACTATCTTGAATGTTCTAGAATTCCAGTTAATAA
 GGTGAAAGTGATAAACATGGCTCCATTTAGTTGTTATCTCTAAATGATTTAGAGAAGTGT
 TTGCCAAATTATAATGTGCATATGAATCACCCGGAGATGTTGTTAAATTCAGGTTCTGA
 TTCAA AAGGCC TAGGGTGGGGTCTGAGATTCTGTGTTACTAACAAGTTGCTAACTGAGGC
 TGATGTTGCTGGTTC CAGATCACACTTTGTTTAGTAAGGATAAGGGCAGGTTTCCAATC
 TTGGCTGCAATTAGAATCACTTGGGAAAATTA AAAACATCTATATCTGGGTCCCATCCTA
 CCCCCAGAGATTTGTCTTAATTAAGTGGAAATGTGGCCGGGTATCAGGATTTTAAAGA
 AGCTCTCCAGCTGATTTTGGCCGTT CAGCTCACCGTTTGAACATGACTGAGTAGAGAATG
 GACCCTGGAAGATGAAANNNNNNNNNNNNNNNNNNNNNGTACCTGCCGGGCGGCCGCTCTA
 NAACTA

Sequence 2450

AGGTACTCTCCAGTGACATGCTTCTTGACCACAATGGATGAACTGTGCCCAGCATGCC
 ACTTTCCAATGCTCCACTGATCCCATGTTTTGTTTCTGAAGGACAACCAGCCTTGAAT
 AATGGCAAATACCTTCTTAAGTTCCTACAAAGTATGGTCCCTGGGAAGTTTATGTCTGA
 AGTCAAACCTTGGGAAGTAAGTGTGATGCCTCTTCCAGCATCATCAGCATCATGC
 TATTACAATCCCAAACCATGGGGGTTTCTCACAGCTTTACACCAAAGGGCATCACTATCC
 CTCAAAGAGAGAAACCT

Sequence 2451

CCGCGGTGGCGGCCCGAGGTACTTTNTTTTTTTTTTTTTTTTTTTTNACTGCAACAACC
 TAACAGGAAAACTAATCAGAGATCATGAGGAGAGTGGTATATCAGTCAGGGACTAATCAG
 GAACATAATCCACTTGAGAATTTAAATAGAGAGGGCTTAGGCTGGGGAGTTGGTGACAG
 CATAATGGGAAATCTACAAAGCAAACAGGAATAGGGAGACAACCCANAGCCCATCTAGGC
 TGGCAGAGTCATCATNTNTAGGCTGGAAGGTCAAAAAAGGTGG

Sequence 2452

TCAGTTTGTTTGTGTTTGGTTTTGAAAAAGTAGGTTTTTTTTTAGTATGTGATGAGCTTA

Table 1

TTCTTAAGTGAATTAATAAATACTTTTTAGTATCTGTTTTAATTCTAACAGTATGAGTGT
 TGGTAGTTATATCCAAATAAACAAAACTCTTAGAGTCCTCAGTAATTTTAAAGACTGT
 AAAGGGGTCCTGAAAATGATTAAATGTTTGAGAATAACTGCCTCAGAACATTGTTCTTCA
 ACCCTAATCAAACCCAGCACGGCATTATATAAAAAATGATTTTATAATGCCCATTTGCT
 AATCCTGAAATAAAAAACATAGGTAATAAGAATGACTTANCCAATTTCAAAAAATATCAA
 TGGAGGGAATACTAGTGTGGAGACCTAACTATACAGGAGAAATAAAAGGAAAGTCATT
 TTTTATAACATTATGCATGCATGTATAAAGCACTCAGATCTGATGACATTGGGAGACACG
 GTGGCATAGCCAGATCCTTACACCTGTTTGTGGACTCACCATGAATACAGCAAGTGGCCA
 AAGCAAACCCCNCGCTATACTGATAGGAATTTCAATTGGCTTNGGTGATGGTCATTTCT
 ANAATGGTAAGAAAATCTGGTAAGGTTAAATGAACCAA

Sequence 2453

CCGCGGTGGCGGCCGAGGTACGCCACAAGGCATTTAATGCCACAGTAACAGGGCTGTT
 TGACAGTGGCAGAGAGGACGGGACTAAAGTTACTTTGTGCTGAGAGGGGGAAAGAAGCA
 CAAAGTTTGGTCTGTTGCGTAATTGAATTTTAACTCTTATCCACAACAAACACTTTT
 TCGTGTCTGCTGTGTAAGACATCAGATATATTACAGATTTTCAAACAGGCAGGTATC
 AACATTTACATTGTAATTCAATAGACGCTACTACTACAAAGGAGCTTTATTCTTCCAAC
 TAATATGGTTGCTGCGGGAACACTGCAGGATGAACTGACTTTTTTGTGGTAATGTTTC
 TCCTGGTTGGGAACAACGCAAATTAGCAAAGGCGTAATTTATAACCGCTGCTACCAAAGA
 GTGAAGTATTTGTGGAAGTTCTGACTGGAATCTAACTCGTACCTGCCCC

Sequence 2454

CCGCGGTGGCGGCCGCGGCCGCGGCGGAGGTACTTTNTTTTTTTTTTTTTNTGCTNGGGG
 NCTTTTCCCCTAGGATTTCTCCAATGAACACAAAATGCTTTGTAAAAAGAAAACATG
 ATAAACACATTGAAAAAAGTAAAGTAGGTGAAATGTCAATGAAATCTGGTTTGT
 AGAACCATCAAACTTGGAAGTTTAATAAGACCACCANNAAGAAGAAGGCAAGT
 TTCCAACTGATTTACAGGGCCAGGAGGCGAGGCCACTGANATAGGTAAACCATGGAAG
 CACAATCAGTCCCATCTCATGGATATTCTACCTGGGGCTTTACTTTGCGTGGCTCAAAA
 GCATCTGAGTNTTANACCAACAGAAAGATAACTCCNGAAGAAAGATGTAATAGTGTCATA
 TTTGTGAATTGATTGATCTAAAACCTGGTTGATGAAAAATCCCTGGGACAACAGCAAGA
 ANAGTTGCGTTCCAACCCCCCGAAGTNTGCTGCTTTCTGAACTGCAAGTATCATATCTC
 TTGCTTTTGATTTTA

Sequence 2455

AGGTACTCTTTCTAGTTATTAAGAAAGTAACTGTAAACAGCCTCAGGCAGGTCC
 TTCCGGAGCTATCCAGAAGAAGCCATTGTTATCATAGGAGATGGCAGCTCCATGGGTGTT
 ATTGCCCTGAAGACCTTCCAGTGGGACAAGATGTGGAGGTGGAAGACAGTGACACTGAT
 GATCCTCACCTGTGTAAGCTTAGGCTACTGTGTGATTTTGTGCTTAGTTTAAACAAA
 AAGGTTTAAAAATAAAAAAAAAAAAAAAAAAAAAAAAAAAGTACCTGCCCG

Sequence 2456

TANGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGACACCCTAGATCC
 CAAGATCTCCAAGGATTTGGTGGCATAACCACTCCAGCACACAGAAGCATGAGGTTTCATG
 ACTCTCCTNTTCTGACAGCTCTGGCAGGAGCCCTTGTCTGTGCCTATGATCCAAAAGCC
 CGCTTTTGCCCAAGATCGGGGAACCCCTTTGCCATTGAAGCATCATCCAGCTTAAAAAGG
 AAA

Sequence 2457

AGGTACGCGGGAAGAAGGGTCAGCTCAGGGTGTGCCATGGGAATGAAATTCATATTGCC
 TAACCGATTTGATATGAATGTGTCTCGATTTGTGAAGTCCTTAAATGAAGAAGATAG
 TAAAAATATTCAAGATCAGGTAACTCTGACCTGGAGGTGGCATCTGCTATTTAAAGC
 TGAATGCAATATCCATACATCTCCTTCTCCGGGAATTCAAGTAAGGCATCTACACCCC
 CTCTACAACAAAGCATTTCTACCCATAAAACAGTCAACCACTTTAACCAACAAACACAG
 AGGAAATGAGGTCTCTACCACACCTCTGTTAGCAAATTCCTTG

Table 1

Sequence 2458

AGGTACGCGGGGAGGCCATCTCGCTATAGGAAAGGAAAGTGGAAACAGCATTTCATCCTCAA
CATTTTACGAAGACAAAATGAAGACTGGAGTAGAAGACTGATCAGTGCGCATCATCAGC
ATCATGCTATTACAATCCCAAACCATGGGGGTTTCTCACAGCTTTACACCAAAGGGCATC
ACTATCCCTCAAAGAGAGAAACCTGGACACATGTACCTGCCCG

Sequence 2459

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTGTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTAAAAAAAAAAAAAATNAAATTTNTGAAANGNGGNAANTGGA
ANTGGTAANNNTNAAACCAAAANTNTGGAANTAAAAAANTTNAAAAAAATTAAAAANTTG
NGAATTGAAAAAAAAA

Sequence 2460

TCGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGAG
CTCTTTGTGGCTTGGGTGGTCAGCAAGAATTTTTAAGCAGAGATACTCTTGATTGGGTT
GGATAAATAAAAGAGCAAGGAGGACATTGTAGGAGGGGAATTGCTCCCAGCAGAGCCTAG
AAGCAGAGAGATTTCCAGGGTTCCCAGGAGAAGAGATTGAATAAGTGCAGTGGGCCATG
TGGTGACACATCTTGAGTGTCCAGCTGGAGAACTGGAAGTGCATATCATAACAGGGGTGG
AAAACCAAGAGGTTGATAGGGAATGTTGAGGTTGCAATGAGGGGACCCGGTGGGGGAC

Sequence 2461

[illegible]

Sequence 2462

TCCGGCGAATTTTTCTCNCNANNGCGGCGGCCGTGTGGCGCANGGAGGACCCCTTACAGT
AACCACAGCGTNTTTNAATCCGAAAGGGAAAAGACCCCGGTACCTTnnnnnnnnnnnnnn
nn
nnnnnnnnnnGCCCGGTTCCCTANNTATTTGTTCCCTTTAGTGAGGGGTAAATTGCGCGC
TTGGCGTAATANATGGTNCATAAGCATGNATTCCTGTGCTGAAATTGTNATCCGCTTAAC
AATTTNCACACAAACANACNAGCCCTGGGAGCATAAAAAGNTGATAAAGCCTNNGGGNGC
ACTAATGAGTTGAGCTAAACCTTCACAATTAAT

Sequence 2463

TCCACCGCGGATGGCTGGCCGCCCGGGCAGGTACTCTTTCTGGATTACCATTTATACA
AAGAAAATCTTACCCAGCTGGAAGAGGAGGAACAAACTTTTTACTATCAGGGCACAGG
CAAAAAATNCATTTGTGCAAGAGAGACATATAAGCAAACATGCATTTACAGTGTAGAGGA
ANNGGGGACCNCAGTATTTTTTTCTCCTGGGAANNCTTACATTTTTAATTAATNNCNC
CTTGNAAAATTTGTAGNANTANTTAANANGCCTTCCNTTGATTTTCANATGCAATTCAA
NACCTCANNGCCAATGNAATATNCAAAACACNTTTCCANGGTATGTTGGGGAATNGTCNCN
ACGATTATGTANAAGTAAAAAAGTGGCTCCANGTAAAAAA

Sequence 2464

CGAATTGGACTCCACCGCGGTGGCGGCCGCCCGGGCAGGTACCTTAAAAAAAAAACATCA
GTTNTGGGACATAACAAANTAAATACTATGGAGAAATGGTATCTGGACAGGAACAGAAAT
GTCCACAACGTCNAGGGATTTTCTTTACACTTGGCCACAGAGTCGTTAATTGANNCCTA
CCACTCCTTNAATATTGGGGATTCTCTTAATTAAGGTT

Sequence 2465

Table 1

CCGCCCCGGGCAGGTACCTTTCTTTGGAATGGGTTTGGTTTCGACCGTCATACTTNTTCAAG
 GTGATATANACGCTGCCCCGACGTTNCGGCACCTTTCTGGAAAAGTNTGGTCAGCTCCGTCA
 GGAACATGCTCNNTTCTNCAACAACACCATNCCGNNNGACCCNNNGNNTACTCNTGGG
 CCGCTTTNTAGAAAACATACGNTGTGNATTNCCACCGGGGCCTGNCAAGGAAAATTACGT
 ATNATTNTAAAGGCNTNTATTGNGNATTACCCCGATACGTAACNCTNCTGAAGNGNGNGG
 GGGGCCACACGNGGTATCTCCCAANACATTANTTNTGGATTTTCNNCCCTNTTTAAGTTG
 GAAGGGGGNTTTTAAAANTTTNGNCNGNCNGACNTTTTNGGACCGTTNAAAATNTCAATT
 GGGGGTTCNCAATNACGNCCCTTTGNTATNTACNNCATCGGTGGGNTGGAAAAAANTATT
 GNTTTTAAATNACACNGGNTTTCCNAACNAAAATTATNCCCAACTAACCAAAACNTATTT
 AACCCNTAAAGGCCTCNGGGGNGGGAAGGACNAATTAAAAAAAGTTTG

Sequence 2466

CTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATTGACCCA
 AAACCTGGATGTCCTATCTGTGTGTTCCAGTAGTGCCCTATTTTAAATGTGTCATGATAT
 CTATTACTTTGTGTGAAAATTACCTGTTTGTGTTTTTTCAGGTTATATAAGTATAACACT
 GCCAAGGAGCGGATTATCTCATCTTCATCCTGTAATTCAGTGTTTGTACGTTGGTTGT
 GAATAAATGAATAAAGAATGAGAAAACCAGAAGCTCTGATACATAATCATAATGATAATT
 ATTTCAATGCACAACCTACGGGTGGTGTGTAAGTGAATCTATATTTTCTGAACTGGCTC
 CTCTAGGATCTACTAATGATTTAAATCTAAAAGATGAAGTTAGTAAAGCATCAGNAAAAA
 AAAGGTAAACAAAATTGCTCC

Sequence 2467

CGCGGTGGCGGCCGAGGTACGCGGGGGCAAACGCCGGGAGTAGCCGAAGGGGACTGCCGG
 GAACAGGAATTTCTTCACATGGCTCCTGGAGAAGTGACCATCA

Sequence 2468

CCGGGCAGGTACCCGGGCGTGTGAGGTGTNAGTCTGCCCCTACTTGGGGGTGCCTCCAG
 TTAGGCTACTNGAGGTCTGGGACCCACTTGAGGAGGCAGTTCTGTCCGTTCTCAGATCT
 CCAGCTTGCGTGCTGGGTGCNTGGGGAGAAACCACTACTNTCCCCGCCGTTACCTNAGGC
 CCGCTTCTTAAGAAACCTANTTGGNATTCCNCCCTCGGGTCTTGTATGGTAATTTCCNAT
 TATTCAAAAGGCTATATTCNGTATAACNCCGTGCTGACNCTTNGNAGGGGNGGGGGGNC
 ACTCCGGGNTACCCCCAAGNCTTTTTNTGGTTTCCCACTTTTAANTTGNAGNGGGGTTA
 AAATTAGTCGACCGCCCTTTGGNCNGTTANAANTCAATTGGNGTTCAATAAAGGCCTGGA
 TTTTCCNTTGTGGTNGGAAAAAANNNGTNTATNTCCGNCATTCAACCANANTTTTT
 NTCAACCACCAAAACCNATTANCCGTAAGGCCTCCNGGNGNNAAGTCCAATTAAAAAAT
 NNTTGGNTAAAAANAAGGCCNCNTGGGGGG

Sequence 2469

GGCCGCCCCGGGCAGGTACGCGGGGANTTNTCTACTGGCGAAACCTGTATCCGGGCCCAAC
 CTGAAAACATCCAGCCAAGAACTGGTATAGGAGCTCCAAGGACAAGAAACACGTCTGGC
 TAGGAGAAACTATCAATGCTGGCAGCCAGGTTANGAATATAAATGTANNAAGGGGAGTAG
 ACTTTCNCAAGGGGAAAAATGGCTTACNCCAAANCTTGCCTTNCATAGNCGCNCTGCTGG
 GCCAATTATGCCCTCNTCAGAAAACAATCAACNCTTACTCACATGCAAANGAANCNGGN
 CATNGGCAATTAACAATGNGGATTGGATGGTAGTACTTGGGCAAAACNCATGAAAAAA
 AAGGGCCTNGNACAAATATNCTTAACCAAGGGGGNCCTTCNCTTAAATAGGAATTGNTAT
 NGGAAAACCATTTNGGNTTGGCNTTGGAAAGGGGGGCCAAAACCAAGGCNAAGTGGGNNTT
 CCACCTTTTTANCCAACCCTNNGGTGNTCCNTNTTGGGTAANGNNAATGGGGGCNNTNGG
 NCTTCCCTNNAAAAA

Sequence 2470

AGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTCTAAAAGCAAGGNGATCTGTGATATTTT
 CGTCTTTTGTATGATTCTCTACTTCTTATTCAAGACCTGTGATTAAGTTGNGTGTATAT
 TGTCTGTAAAAATGAAACAAAAGTAGGTCCTAAACATTGTAAGAATATGGTATACTAAAAA
 GCTTTGAAACCAAAAAGAAATTTAAAAAACAACAACAACAATGTAGAGTACCTCAT

Table 1

ACCTAACAGACACTATAGAAAAGCTGATATTTTTTCCGTTGAAGTTAGGACATTANATC
ATTTTTCACAAAAATAGATTCCCTTAAATAANACATGTTGTCTAACAGGTATTTACA

Sequence 2471

CCGGGCAGGTACAAACAGGTGCTATCATAATTACCTCTGGGCAACAGGCAAAAAATCAAGA
TTGTCCTTAGTAAACCAGGATTCATACCAGGTCATCTGATGTTTAGTATAGCACTCACCC
GACTCTGCCTTACATTGCTTATTTAAATGTCTGCCTCCCCTTCTAGGTTTTATAAAAGT
TCTTGGCTCACAGTAACTCTTAGTATAAGTTTCTGAAATAAACACTTTGTTACACTTTT
GAATTGATGGCTTACATTTTTGTTTGGCATTTAACTTACATTTGTGCATTCATGTGTA
TGCATTTCAACTCATCTGCAAGCTTATATCCCTCAAAGTTTGCTGCTGGGC

Sequence 2472

AGGTACTTTTTTTTTTTTTTTTTTTTTTACATGTATCAATTTATTTACTTTTGGTT
TTGCTCATTTTTACTGAAAATATGATTATCTATGTGGTGTCAATTTTTTCATCTCAAAT
AACTTCATTTTTACATAGTGTAGTCCAGCTGGAAACGTTTATTTTATGTTTATCTTTTAA
ATGATATTTTCACTGGATACAGAAACCTGTCTTCTGCCTCGCTCACGCTGGGAGCTGTAN
ACTGGAGCTGTTCTATTGGCCATCTTGGCTCCTCCCCACTAATGCTGTTCTTCTAGAC
ATGTTTGAATAGGGGCATTGCTATAATGAATGGCTAGCAAGTAGGACAA

Sequence 2473

ATTGGAGCTCCCCGCGGTGGCGGCCGNCNGGGCAGGTACTCTACATACCTGTATCTNATT
TCATCCTAACAATAGCCACACAAGCTAGACATAATTATCCCATTTTCCAGGAGAACTGA
AGTTCANAGCATTTAGTAACTTCCTCAAATTTATACACCTNAATAAGTGGTAGAGCCAGA
ATTG

Sequence 2474

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGCGGGAGGTGTGCTG
TGTGTGAGGCGCCTGCCATGGTGTATGGCCGTGCACAGCCAGACCATTAGATCCCACCGT
GCCCCAGCGGGTGGTCTCGCTGTGGATCGGCTACTCTTTTGTATGCACACCAGCGCTG
GTGCAGAAGGCTCTGGCCAAGCCCTGGCGTCCCCCGGCTCCTGCCCCGAGGAGTTAGAA
GTGCGCCATTCATCGAGTGTACGCGCCGCTCTAGAACTAGTGnnnnnnnnnnnnnnnnnn
nnnnnnnnCGATATCAAGCTTATTCGATACCCGTCCGACCCTCGAGGGGGGGGGCCCCGGT
ACCCCAGCNTTTTGGNTCCCTTTAANTGAAGGG

Sequence 2475

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAGAGGAGATGCTGCCACCTAGGTTAC
TTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAATTTATAAACATCCTGCAGGA
AAATGGTAGCTGAGACCAATGATGCTGACCTCCCTCAAAGCTGCATTTCTGAATTTCTG
AAGGCAAACGTCTGCCTATATTGTACAGCAAAATAATTTCTGTATTAAACGTTTTTA
TTGCTCTAAAAAAAAAAAAAAAAAAAAAAAAAAGTACCT

Sequence 2476

ACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCGGGGTAGGATGGGAAGCCGTG
GGGCAAGGGAGGTTGCAGGAAGCCCATCCTTCCCCTCCTGCGGCAGGTACCT

Sequence 2477

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACCCTGCAGGT
AGGCATTTAAATTGGTGCAACCGCTTTGGATTGCTGCTTTGTAGTATCTGGTGCAACTGA
AGATGAACATGCCCTGTGACACAGCAACCGCACTTCTAGGTCAATACCCTAATTATATTC
TACTGTGGTTCACAAGAAGGTATGTAAGAGGTCATTGCCTGAGCACTGTTAGAATAGG
GGCAAACCTGGAATCCTCTAAATGTCTGTCAATGAAGGAATAGATAAATTGTAATATGTT
CATATAAAATACTGCATAAATAAGTGAAATTTATAAATGTACCTCGGCCGCTCTAGAACT
AGN

Sequence 2478

ATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACT
GCTGTTTGGGCTGCCATAAAAAGCACACAGACGACATGGCTTACACCACAGAACTCA

Table 1

TGTTCTCCCAATCCTGGAAGCTGAAAGTCCAAGATCAAAGTGTTGTCTGGGTTGGTTTCT
TCCAAGACCTCTACTGTTGGCTTACAGATGATTGTATTAGTTTACATGATGTTCTTCTA
TGAGTGCCTGTGTCGATTTTCTGTTCTTATAAAGATATCAGTCAGATTAAATGATGGTTC
ACCCAAATGACTTCATTTACCTTAATTACTTCTCTAAAGGCTCTATCTCCAAATACGGT
CACATTGTGAGTTTCTCAAGGGTTAGGACTTCAACATGTATTATTTGAGGGAGTGGAACA
CAATTCAACCCCAT

Sequence 2479

CCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTTNNTTTTTTTTTNNNTNNTTTTTTTTTTTTTTCCCANNAANAANCCCNNTNNTNN
NNAAAAAAGAACGTGAGGACAGGGCTCCTGCTGCGCAGGCATAAAGCATCCAAGAGTCT
GCACATACATGCCACACACTAAAAAAAAAAAAANTNNAGCNCNANNNNNAANTCTGGGG
GGGGGGGGAACCTTAAAAAAAAAAAAANNTTNCNAAAAANAAAAANGNNNNNTAA
AAAAAA

Sequence 2480

CCGGGCAGGTACTTTNT
NANTNNTTTNNTTAAATNATNAAGGAANAANNAANNAANNAANNAANNAANNAANNA
AAAAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNA
AAAAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNA
TNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNA
AATATTTTTNAAATTAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNA
CCAAANTNTTNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNAANNA

Sequence 2481

CCGCGGTGGCGGCCGAGGTACATCCTGGATGGATGAGAATGGGCACCATATTTTTTATGA
ATATATATTTTTCTTTTTTTGTTTTCTACAGCACCAAGAAATCAAATAGGAAAGGA
GAGTTGAGAATTGGGAATCAAGAATCAGCCCTGTTTCCATCTTAGCCACACCAACTTATA
TCTTTATGATTTCAAAGCTTTTGCCATGTGATTCTGCCCCACAAAGGCATCGGTATTT
CCTAAATGGTACCTGCCCGGGGCGGCNCGCTCGAAATACCGAGCCCGGGGAGCATTAAAA
GTGTAAAGCCCTGGGGGTGCCCTTAATGGAGGTNGAGCCTAACCTCACATTTAAATTT
GGCGTTGCGGCTCACNTGCCGCTTTTCCAAGTTCGGGGAAACCT

Sequence 2482

AGGTACGCGGGACTGTTATTCTCTCCAAAGCTTACCCAGCAATAGGAACTCCCATACCAT
TTGATAAAATTTGTATAACAGGCAACAGCATTATGACCCAAGGACTGGAATCTTTACTT
GTCAGATACCAGGAATATACTATTTTTCATACCAGTGCATGTGAAAGGGACTCATGTTT
GGGTAGGCCTGTATAAGAATGGCACCCCTGTAATGTACACCTATGATGAATACACCAAAG
GCTACCTGGGATCAGGCCTTCAGGGGAGTGCCCATCATTCGATCTCACAGGAAAAATGAC
CCAGGGTGTGGGCTCCAGCTTTCCCAATGCCCGAGTCAAATGGGCCTATTACTTCTCT
TGGAGNTATGGTCCCACTTCCTC

Sequence 2483

CCCGNGGTGGCGGCCGCCGGGCAGGTACCGTTCTCTCCAGTGCCAGAGATGCTCTCCGC
ACCAAGCCACAGATGTGGAGGAGGCAGGTAGGGGGTCAAAGAGGGGTGGTNTCGGTTATT
CAGGACTTTTTTTTTTTCTTAAATATCCTGNGCTTNTTCAATCATTTGAAGGTAACCC
AGGTCCTGNGANTGGTAACTGATTTTTGGTCT

Sequence 2484

AGGTACGCGGGTGGGCAGCCGGAGAACAACACAGACCGCTCCCGTGCTGGACTCC
GACGGCTCCTTCTTCTCTATAGCAAGCTCACCGTGACAAAGAGCAGGTGGCAGCAGGGG
AACCGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACACGCAGAAGAG
CCTCTCCCTGTCCCGGGTAAATGAGTGCCGACGGCnnnnnnnnnnnnnnnnnnnnnnnn
nnnnnCTGCAGGAAATTCGATATCAAGCCTTATTCGATACCCGTCGACCTCGAGGGGGG

Table 1

GGCCCCCGGGTACCCCAAGCTTTTGTCCCTTNTAGTGGAGGGGTAAATTGGCGCCGCT
TGGGCCGTA

Sequence 2485

GAGAGGCGGTTTGCCGTATTGGGGCCGCTCTTCCCGCTTCCCGGCTCACTTGACTCGCT
GCGCCTCGGTTTCGNITTCGGCTGCCGGGCGAAGGCGGTAATTCAGCTCACTCAAAAGGGCG
GGT

Sequence 2486

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATAATTAACAATTTG
TGGAAATTGAAAAAGCATAACTGTGTTATTTGATTAGTAATATGTTCCCTTAAATTCAT
TTTTGAGGTGTATGTTATACACACAGTAAATTTTTGTTTCAAGGAATGACTTGCTCATTCTG
TGTTTTTAAAAATAGGAAATGAGGCATAGTGAGTCATCATTACATCAATTAACCAAAAAA
TATTTTCATCCCCTCCGTCACTGAAATTATCTACTTCAGCCACCTTTCTTATTCTCCGTGT
TAGGGAGGGCCACGTTTATGGGACTTNTTAAATTTCCATGTGCCCATTTATTTGTCCAC
TTACCCGGGCAGTTAGCCCAAAAGGCTAGGCCTGTTTCAGTTCCACAGGA

Sequence 2487

TATACGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGG
TGCGATTTCGCATATTCGCGGAGATCATCAAGCCAGCAGAGAAATCCCTCCATGAAAAGTT
AAAACAAGATAAGCGCTTTAGCACCTTCCTCAGCCTACTTGAAGCTGCAGACTTGAAAGA
GCTCCTGACACAACCTGGAGACTGGACATTATTTGTCCAACCAATGATGCTTTTAAGGG
AATGACTAGTGAAGAAAAAGAAATTCTGATACGGGACAAAAATGCTCTTCAAAACATC
ATTCTTTATCACCTGACACCAGGGAGTTTTCATTGGGAAAAGGGATTTTGAACCCCTGG
GTGGTTTACCTAACATTTTTAAAGGACCCACACAAGGGGAAGCCAAAAATTCTTTCTTG
AAAGGAAGGTAAAA

Sequence 2488

CCGCGGTGGCGGCCGAGGTACGAAAGAGAGACAAAAGGGTTCTCTTGGAACAAGAAGAG
TGACTCCAGATGTGGCCTGAATAATTGCCATGTTAAGTTAATGCAAAAGATCAGAACAGG
GCTACATTTGCACAGGCAGTTTCTCTCCGGGCCGTAGTTTTCACTGATGATCACCTTTCA
CAGCATTTTCCCCAACCCAGCATTTCACTTAGTCTTCTCTATACCCAGCACCTCCCCGGC
ACCCCCGGCAAGCCCACTTATCACTTCCCGACTTTCCAACGTGGCATTCCCGTGGAGGAT
CCTGTTCCACATTAGGGCGAAAGCAGGGAGAAACACCTGGNGNAGCCAGCCAGGGATGGG
GTTTTGGGAAAGGAGCCATGCCCTCTGGG

Sequence 2489

CCGGGCAGGTACGCGGGAGCAGAAATGATTGCACTATTGATAAATTCGGAAGGAAAAATT
GTCCATCTTGTCTCTTCGGAAATGTTATGAAGCAGGGATGACTCTGGGAGCCCGGAAGC
TGAAGAACTTGGTAATCTGAACTACAGGAGGAAGGAGAGGCTTCCAGCACCAACAGCC
CCACTGAGGAGACAACCCAGAAGCTGACAGTGTACACATTGAAGGCTATGAATGTCAGC
CCATCTTTCTGAAATGTCTTGGGAAAGCCCATTTGAAGCCAAGGTGAAGATGTGNTGCC
TGGACACCCGACAANCAACCCAGGCCCGGACTTCTTTGGCAGGCCTTTGGCTTCTCTAGC
CCTCACTGGAACCTGGGGGAGNAGAAGA

Sequence 2490

CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGTTTCTGGTAACCTCAAAGC
TCCCTAAGTCACTAACCTTCTTCGCCCCCTCCTCCACTAAGGGGCTGTCAGGAAGCATCA
ATTTCANAAAATCTTCTTTAGACAGAACATATTGAGTCTNTGCAACAGCATCTCCACCA
CTGTCTGATGCTGANTTGCTGTGGACATGACGCCCAACTCACTATACATCCCGGGACATT
CAGTCACTTNAGGCTCCTCGGGNCGGNGGGGCTGCCCTCNCGATTTCTTCCAGC

Sequence 2491

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTAATAGCTCAAACTCAGAGTCA
TCGTGCTCCCAATTCCAAGAGATTCTTAAAGAGGCAACTT

Sequence 2492

Table 1

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAGTGGATACCCCA
GAATGACCTTCTAGGTCATCCAAAAACCAGAGCTTTTATAACTCATGGTGGAGCCAATGG
CATCTATGAGGCAATCTACCATGGGATCCCTATGGTGGGCATTCCATTGTTTTTATGATCA
ACCTGATAACATTGCTCACATGAAGGCCAAGGGAGCAGCTGTTAGATTGGACTTCAACAC
AATGTCGAGTACCTGCCCGGGCGGCGCTCTAGAAGTGGGGATCCCCGGGCGCTGC
AGGAAATTCCGATATCAAGGCTTATCGATACCCGTCGACCCCTNCGAGGGGGGGGGCCCG
GGTACCCAGCTTTTTGTTTCCCTTTTAAGTGGAGGGGTTAAATTGCCGCCGCTTGGC
CGTTAAANCATGGGTCATT

Sequence 2493

CCGCGGTGGCGGCCGAGGTACGCGGGGAGTCTTCACTGCTCTGCGTCCTGTGCTGATAAA
GGCTCGCCGCTGTGACCCTGTTACCTGCAAGAACTTGGAGGTTACAGCTAAGACGCCAG
GACCCCTTGAAGCCTAGAAATGGGACCACTGACATTTAGGGATGTGAAAATAGAATTCT
CTCTAGAGGAATGGCAATGCTTGGACACTGCGCAGCGGAATTTATATAGAGATGTGATGT
TAGAGAACTACAGAAACCTGGTCTTCCCTTGGTATTGCTGTCTTAAGCCAGGACCTGGA
TCACCTGGCCTGGGAGGCAAGGGAAAGGGAGCCCCCTGGGAATCCTGGAAGNAGACATGG
AGATGGGTTNGACAAAACCCCACT

Sequence 2494

CCGCGGTGGCGGCCGAGGTACCCCACTGATGGGACATGGTCGCGCTGGCGGTGGGGCA
GGGCAGGAATCGGCACCGATCTGGCGGCGGCGCTTGGCGCCTGCACTGTGTGTCCCCG
CGTACGCGGGGAATTCAGAAATCACTACAAGCAGCATTAGACTGAAGTTGGAATATTCT
GTTGACCATAAAACCTTGATATCATTCTGTGTATATAGAATGTAAAAGGAATATTACAGT
GTTAACTGCCATATATGTAATATACACAACTCAATTAGCATTGTAATGGCCCCAAATG
GCATCCCCCATGCTTTTTCTGGTTTTTCAAAAAAATTGGAAAAAACCAAAATCAAAC
TCTTTATCCCCAAACAGGCTGCCCTAATTTTAAGGGAGTTCTG

Sequence 2495

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGACCACTCTT
GAGAGGTGGCCAGCCAGACTGCCTGTCCACATGCGTGTGACACATACAGCCGCTTCCTG
GAAGCCGCCTGGAATGTCTTCACGGCAGCGTTTTGCTCACACAGCANGCTTTTGCAGGCC
CCAGGCAGCCCCGACTGCTGAAATCCAACCTTGAGCTGGCTGGTGGTCCCTGGATCCTAGA
GCCCTTCACTTCGGGTTACTCCCTCTTTCTTGCCTCTATTTCTTAGTTGGAAGAAAATAA
ACTCACAATTATTGGTGCAGTAATTTTTCCCGGGGGAAAAGGTAAAGGCCTCAGGGA
ATGCCCCACCGCCCTTTTCTTCCAAAGGCCTTTGTCTCTGGAGACCCTCTAAGGTTCT

Sequence 2496

CTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTTTTTTATTTTTTTTTTTTTTTTTTTTTTTCTTTGGGCAACACTTTATTGGGA
AANATTACNCNCGGNGACCTGTCTNTAGGCCAAGCGATNAAAAAGGGCCCCAGGANNC
TGGGGTCCCGAGGNGGCTCAAATGGAANCCATGGGA

Sequence 2497

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTTTGAGAAGCCAGCGCTCACCC
ACCCGGGGTCTCTGTGCATTGACCTTTGGGTGCTGACTTGGAGAAAAGCACAAACACGAC
CAGTCCCATCCTGGCTCCCGTGGGGCTTCTTCTATCTACGCATTGTATCGACTGCATTAG
TTGGACTAAGATGATGACTCAGTTAAAGGAGGAGACAAATGCTGACTGTCTAAGCAAGAA
TGGCCCAAGCTGGCAAGAAAAAGCACACTTGCATACATCCCGCGTACCTCGGCCGCTCT
AGAAGTAGTGGGATCCCCCGGGCTGCAGGNAATTCGATATCAAGNCTTATTCGGATTA
CCCGTCCGACCTCGNAGGGGGGGGGGCCCGGTACCCCAAGCTTTTGTTCCT

Sequence 2498

CCGGGCAGGTACTGAGTCAAGGACGTCTTTAACGTCATGGACGGCTCCTTTACCCACGCT
TTCTAGATCTTCGACTGCATCTTTTCTAGTTTTCCGAGTCCCCCAAGCTTTTTTTC
TCCGCTAGGCCTTTTTCCAGAAGGCTGGATCTCTGCTTCTTGGCTTTGGTGCCTGTCT

Table 1

GGCTAACCCCTGGGTCTTCACCTGCATTTTCCTTTTGAGCTGCTGATGCTTCATGGCAAGG
GTTCCCCCGATCCTGGGGCAAGCCCCGCGTAACCCTCGGCNCGCTCTAGNAACCTAGGTG
GGATTCCCCCGGGCCTGCAAGGGAATTCGGATATCAAAGCTTATCGGATACCCGTCCGA
CCTTCGGAGGGGGGGGGCCCCCGGT.

Sequence 2499

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGG
ACTCAGAAGCTTGGACCGCATCCTAGCCGCCGACTCACACAAGGCAGGTGGGTGAGGAAA
TCCAGAGTTGCCATGGAGAAAATCCAGTGTGAGCATTCTTGCTCCTTGTTGGCCCTCTCC
TACACTCTGGCCAGAGATACCACAGTCAAACCTGGAGCCAAAAAGGACACAAAGGACTCT
CGACCCAAACTGCCCCAGACCCCTCTCCAGAGGTTGGGGTGACCAACTCATCTGGACTCAG
GACATATTGAAGGAAGCTCTATATAAAATGCCAAGACAAGGCAACANAACCCCTGGATGA
ATTATTTCACTACTTTGGAATGAAGTGCCCCACCACAGTCAAGCCTTTTAAAGGAAAAGG
TGGTTTGCT

Sequence 2500

CACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTTTTTTTTATNGCAAGGACTGAGGCTGGAGCTCCACTTAAGTGGTTTGATCCAA
ACTGGAAAAGCAACTTCCAGCAAGGAACATCCANATAAACCCCTTTGCGGAACAAAANAGN
GGGCCCCCTCTGACCACAAAGATGGAACCCGCTCTCCTTGATACAATCCACGAATTTAC
ATCTTTTAATCGGCTGTCCACTCAGGCCTAGGGCGTAGTCAGAAAATGACACCCTCCACA
CATTGTGGTAAGGCAGNAATTAAGCCTCAAACCCACCGGGTGACCCTATGTAGGTTCT
GGGTTTTGACCTGGGGGAGCCACCTTNTCAAACCTCCTTATACCTTCCCGACCGAAAAC
TCACTGGGAGCT

Sequence 2501

ACTGTNNCCCCGACCCTGCCCGCTTACCGGGATACCTGGTCNCGCCCTTTCTCCCTTCGGG
GAAGGCGTGGGCGCCTTTCTTCATTAANCTCACCGCTGTAGGGTATTCTCAGTTCCG

Sequence 2502

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACCATGTGGGACTCCAG
GCACCATCTGTTCTCCCCAGGGACCTGCTGACTTGAATGCCAGCCCTTACTCCTCTGTGT
TGCTTTGGGCCACCTGGGGCTGCACCCCTGCCCTTTCTCTGCCCCATCCCTACCCTAGC
CTTGCTCTCAGCCACCTTGATAGTCACTGGGCTCCCTGTGACTTCTGACCCTGACACCCC
TCCCTTGATTCTGCCTGGGCTGGAGTCTAGGGCCTGGGGCTACATTTGGCTNTCTGTAC
CTGCCCGGGNCGGCCGCTCGACGGGTTATCCACAGNAATCAGGGGGGATAACCGCCAGGG
AAAGGAACATGGTGAAGCAAAAAGGGCCAGGCAAAAAGGGCCAAGGGAACCCGTAAANA
AG

Sequence 2503

CCGCGGTGGCGGCCGCCCGGGCAGGTACTATGATCCAAACACCAAAAGCTGTGCAAGATT
CTGGTATGGAGTTGTGGTGGAAACGAAAACAAATTTGGATCACAGAAAGAATGTGAAAA
GGTTTGCGCTCCTGTGCTCGCCAAACCCGGAGTCATCAGTGTGATGGGAACCTAAGCGTG
GGTGGCCAACATCATATACCTCTTGAAGAAGAAGGAGTCAGCCATCGCCAACCTGTCTCT
GTAGNAAGCTCCGGGTGTAGATTCCCTTGCACTGTATCATTTTCATGCTTTGGATNTTAC
ACCTCGGAACCTCGGGGAGGGGAACAATCCTGCCTGCATGGACCCTATTCAAGTTATGGGT
GGCTAATGTGNTCTGGTGGGACC

Sequence 2504

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTT
TTTTTTTTTTTTTTCTGCCAACGAAATTATTTATTGCTGTGAGGAGGCCAGGACC
CTCCANACTGAANAGTCCATGGGCCCCCTGTGCATGTGANAGCTACACAGGGAATCGCTGT
CACCTTCCAAGGATAAGCAGACAGGGCCACACATGCCATGGCCACTCGGNGCACAGGGGC
CAGGCTGNGCCCAGAGACCCAGGCATCCAGCTTGCAATCCAAGTTCTTACTGAGAGCCC
CACTGCTTGATGGCAAGNCTCTAGGCATTGCTTGGGGATTGGGTGACTTTTGCCTCATT

Table 1

GAAANAAANAATGTTCTGGGGNGGTCTGTAAGGGGACAATTGGATCATTCAAGGGAAGGG
GCC

Sequence 2505

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTA
CTCAGAAGTGTCTCTG
GAATGGGGCCCATGAGATGGTTGTCTGAGAGAGAGCTTCTTGTCTACATTCGGCGGGTA
TGGTCTTGGCCTATGCCTTATGGG

Sequence 2506

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCTGACACTGCAGTGAAGGGCATG
CTAAGTCTAGGCACAGGTCTTGGCAGCAGGAAGGAGACAGAGCCTCTCCCAGGCACACAT

Sequence 2507

ACTACTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACACCACCAA
AGACCAATAATAAAAAAGAAGGTTCCAGGGAGGGCATGACCTCTGAAATTCCTCATGATC
TTTGGGTGTTTAAATCCATTTCCTTCTGAGTCATTGGTCATCCTTGGTCTCAGTAGA
TCAGGCACGTTAGAACTGTGGCAGAAGAGATAAGAAATGAAGCAGCCAAAAATTGAGCCTTT
GCTTCTTAGGTAATGCTGAAAAGTTTCACACTTTTACCTCTGCCTGAGTCCCCCGCCGAA
TCATTGCGTTACCTCGGCCCGCTCTAAGNAACTAGTGGGATCCCCCGGGCCTGCAGGGA
ATTCCGATATTCAAAGCTTTATTCCGATACCCGTTTCGGACCTTCGTAGGGGGGGGGCCC
CCGGGTACCC

Sequence 2508

TNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGGAAACAT
GCATAAGTGCCAATCCTTTGAATGTTCCACGGAAACACTGGTGGACAGATTCTAGTGCTG
AGAAGAAACACGTTTGGTTTGGAGAGTCCATGGATGGTGGTTTTAGTTTAGCTACGGCA
ATCCTGAACCTTCTGAAGATGTCTTGATGTGCANCTGGCATTCTTCGACTTCTCTCCA
GCCGAGCTTCCCAGAATCATACATGCTGCAAAAAATGCCATTGCATACATGGGATCA
GGCCAGTGGAAATGNTAAGGAAGGCCCTGNAAGCTGATGGGGTCAAAATGGAAGGTG
AAATTCAAGGGCTGGAAGGGAAAAATAGNCAAAATTCACCCTAC

Sequence 2509

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTCTAAACTTCTCT
TCTCACTTCATTCATTCATTTGATCTTCAATCACTGATACCCTTTCTCCAGTTGATCG
AATCGGCTACTGAGGCTTGTCATTGTCACATAGTTCTCGTGCCCTGGTTTTCAGCTCC
ATCAGGTCCTTTAAGGACTTCTCTGCATTGGTTATTCTAGTTAGCCATTTCATCTAATTTT
TTTTCAAGGTTTTTAACTTCTTTGCCATGGGTTTCNAACCTTCTCTTTAGCCTCAAAGTA
GTTTGATNCGTCTGTAAGCCCTTNTTTTTCTCAACTTACCCAAAGGTCATTCTCCAT
CAGCNTTTGTTTCTGNATGCCTGGNNGAAGGGAAGCCTTGCCGTTTCCTT

Sequence 2510

[illegible]

Sequence 2511

CCGGGCAGGTACCAAGGCTTAGAGGTCAGACTGAGGAAACAAATGCTTCACAGAGTCCTC
AACCCATGACCATGAGTTCTTTAATAAGTAAGTGTGTGTGTGTGTATGTAAAATATGT
GAGGCCCTCTAACGCCTCTTTTCTACGGTAGAACAAGAGAACTTCAGTTTTTGCCATC
AATTTATTAAAAATAACATGTATAGCAGGTTTCAACAATTGCTTGTAGTTGTAGTAA

Table 1

AAGACATAAGAAAGAGAAGGTGTGGTTTGCAGCAATCCGTAGTTGGTTTCTCACCATACC
CTGCAGTTCTGTGAGCCAAAGGTCTTGCAGAAAAGTTAAATAAATCACAAAGACTGCTTG
TCATTATATTAATTGCTAGGAAAAG

Sequence 2512

GTGGGGCGGGCCCGCCCGGGGGCCAGGGTTANCCAATTGGGGTGGGGCCCAAATTGGAAT
TTTGAATGGGGTTAAAAGGGGGAAGGGGGAATCCNGTTTTGAACCCTCCGGTCTGGTT
TAATTGGTAAAAAAGGGAATTGCCCGNTAAGGGGGAATTGGGGGAAGGGGGCCGGAATT
GGAAGGGAACCTTAATGGAATTGAATTGGGCCGGGGTTANGGGGAATTAGGTTTCCAAG
AAACNNGTTTTTCTTAATTTTTCCCTTGGAAGGCCCGGTTCCCTTGAANGNAATTGT
TTAAGGTTNATTTAAGGTTTTNAAGTTTTTTNGGTTTGGTGGAAAGGTTGGTTTTAAAN
GGGAAAAAAAAGGGGGGCCAATTAACCAAAGGGGGGAACCTTAANGGGGNAAAAGGCCCAAG
NAATTAAGGGGGGAAAAAAAATTGGAATTTTAATTTGAAAGGGGGGGCCCGGNTT
GGGAATCCAANTTGGAAAAAAGNGGTTTGGNAATTAAGGGGCCCTTCTTTTTTC
CTTAATTTGGAANAAGGGGGGGGGGGGAAAAAAGGNTTAAAGCCCGGTTTCTTTTTT
NGGTTTAAAGGAAAAACCCCTTTAACCCTTTTTGGGCCGGGCCCTTTGNCCCAATTG
TTTNGGCCCCCAATTTTAAAAAGGGAATTTAATTTAATTTANGGGGGGNAAAT
TTTTTTAAAGGGCCCCCTTTAANTTAAAAANTTTTTTAAAAACCCTTTTTTTNGGAA
CCCAAAAAAAGNTTTTTAAATTTTGGNAAAAAAATTGGGGGGGGGTTTTTTTTTTC
CCCAAAAATTAACCCCTTTTT

Sequence 2513

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCGGGCAGGTACCTGTCCTAGC
AGTGGCAATCTTTGGGTCCCCTAAAATAAAGAAAGGCTTATCTCCACACTGTAATGGT
AGTGATTGTGGATATTCATCTAGCATGGAAGGGAGTGAAACAGGTTCTCGGGAGGGTTCG
GATGTTGCCTGCACTGAAGGCATTTGTAATCATGATGAACACGGTGATGACTCTTGTT
CATCACTGTGAAGACAAAGAGGATGATGGTGATAGTTGTGTTGAATGTTGGGCAAATCT
GAAGAGAACGACACAAAAAGGAAAAAATAAAAAGAAGAAGAAAAACAAGATACTGAAA
TGATGTGAACATATCCAGAAGCTTGGAAGCTGTATTACAGATCCAGGTAATCGAGAGACC
TCAGGAAATACCATG

Sequence 2514

CCGTAATACGACTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAG
GTACTGCGGGCGGGTAGGCCTAGGATTGTGGGGGCAATGAATGAAGCGAACAGATTTTCGT
TCATTTTGGTTCTCAGGGTTTGTTATAATTTTTATTTTATGGGCTTTGGTGAGGGAGG
TAGGTGGTAAGTTTGTGTTAATATTTTATGTTGGGTGATGAGGAATAAGTGTAAGGAGT
ATGGGGGGTAATTATGGTGGGCCATACCGGTAAGTATTATGTTGGGGCATTTCACGTGAA
AAGAGGNTGTTGGTTCTCTTAATNTTTAACTTTAAAAA

Sequence 2515

[illegible]

Sequence 2516

TCTGGGTGGGGATTATTCTGGGTTCTACTTCCTGTTNGAAGAAATGTTGGCATGGAAN
AGTGGTAAGTTTGAAGAAGATGAGTGCCGGGGGCCCTTCATCTAATCCCTNGGAAAATTGG
TCTTTTCCCCACCAATCCCCCTTGGACACCAAGAAATTANTGGAAGCCANTACAAGGG
AANTTCTGNAAAGNAAAATNGGGGTNCTTCTTTGGCCACCCCTCCCCAAGTTAAAAA

Table 1

AGGAATTNATTTTTTTTTTTTTAAAAAAGGGGTAAAAATNCTTAAAAACC
TTTGGNGGCCCTTTTNAATCCTTNGNATAATTGGAAAAAANTAACCAGGNAACCAGG
CCCAAATTAAGGAAAAAATTTTTAAAAAATTTNAAACCTT
Sequence 2517
CCGCGGTGGCCGCCGCCGGGCAGGTACTGGATGTCAGGTCTGCGAACTTCTTAGATT
TTGACCTCAGTCCATAAACCACACTATCACCTCGGCCATCATATGTGTCTACTGTGGGA
CAACTGGAGTGAAATTTTCGGTTGCTGGCAGGTCCCGTGGGAAATCAGTGACCAGTTCA
TCAGATTCATCAGAATGGTGAGACTCATCAAGACTGGTGAGAAATCATCAGTGGTCATCT
ACCATCATCAGAAGTCCGTTCCGAAGTCAATTGGGAAGTCTGGGCTGTCCACATGGGTC
CGTCATCATCTTCATCATCCCATATCATCCATTGTGGGTCAATTGGCTTTTCGTTGGGAC
CTTACTTGAAGGGGTCTCTTTGTTAAAGTCATTTGGGTTTCTTTCAAGAGGACACCAG
CATTTCTGTGGGGG
Sequence 2518
ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTGGGCTTTTATCCTGTTTGTGTTCTCTGAGCTTCTGAATCTGTG
GTTTCGTGTCACATTAATTTAGAAAAATCTCATTATTGCTTTGAATATTTCTTC
TATTCCTTTCTCTCTTCTCTCTCTCTCTGGGGTCCACTATGCATACTTACATCTTTTAT
AGTTGTCCTACTGTTCTTGGATATTCTGTTCTTTTATTTCAGTCTTTTCCCTTTGCT
TTCATTTTTGGAAGTTTCTCTTGAATATACTGAAGCTCCAGATTCTTTCCTCACCCACA
TCCAGTCTGCTAATGAGGCTTCAACACCATGCTTCATTTTTGGTAAGGTTTCTTGACTTC
TAGAATTTTATTT
Sequence 2519
CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTCTCGNATCTTATAGGCCAGGCGNGGNGGCTCACGCCTGTAA
TCCCAGCACTTTGGGAGGTGAGACAGGCGGATCACGAGGTGAGGAAATCGAGACCATCC
TGACCAACATGGTGAAACCCCGTCTNTACTAAAAATACAAAAAATTAGCCAGGCGTGGC
GGCANACACCTGTAGTCCCAGCTACGCAACTGNGCCACCTCAGAGAAGTANATTTTTAA
CAAACCAATTTTNTCTTGCTGTTAACAACACTGAANACTAGTANCAGAGGAGTGAAAGT
GTGGGTTAANAGCCTTAAAACTTGNNGGAAAAAG
Sequence 2520
ATTGGAGCTCCCCGCGGTGGCCGGCCGCCGGGCAGGTACAGAAGGGCCATGCTGTTATT
ACTCTTACACAAGGAGGCAGCCCTCGAGCCACAGGCTCCAGCTGTTGGCTATAATAGCCT
ACCGGTCTCTGATGATCACCATGTTTCTGGAATCAAGCCAGGAAGAAGCAGCAATCTGT
CTTCTGGATTAAACTGAAGATCAACCTACTTTCACTTACTAAGAAAGGGGATCATGGA
CATTGAAGCATATCTTGAAAGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGA
AACATTAAGTACATTCTTCAACACCAGATCCGAGCTGTTCCCTTTGAGAACCTTAACAT
CCATTGTGGGGATGCCATGGACTTAGGCTTAGAGGCCATTTTTGATCAAGTTGTGAGAAG
AAA
Sequence 2521
CCGGGCAGGTACTTTTTTTTTGTTTTTTTTGTTTGTGTTTTGTTTTTGGATGGAA
TTTCGCTCTTGTTGCCAGGCTGGAGTGCANTGGCGTGATCTCAGCTCACCGTANCTCC
TGCTTACGCCCTCCAAGTAAGCTGGGATTACACGGTGCCATTGCACACTCATGCCTGGG
ACTAATNGTATANGTACNNTTGTATTAAATNTTTTGNATNTTNITCCTAGAAGGACGN
GTAGTTTTCTCCATTGTATGAATCAGGGGCTGGGTTCTCCGAAATTTCCCAACCTT
NAAGTTTGGATTACNGCCCAACCTCAAGNCCTCCCNCAAGTAGNTTGGCNTGGGGT
ATNTAACTAGGGNCNTTGAACCAACNCGGTANNCCCNCAAACTTNATTGCCNTGGNTG
NTNTTTTTTCTTT
Sequence 2522
CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCTGTGAATTGGACATCTG

Table 1

TTGTTTGCAGATGTAATTAAGATGGGTCATACTTAAGTAGTGTGGGCCTCTAATCCAATG
TGA CTGGAGTCCTACTAAGGGAGCAGGGTCAGAGGCAGACATGGGAGAATGCCATGTGAT
GACGGAGGCTGAGATTGAAGTGTGCAACTGCAATCCAAGGAATGCCAACATTTGGTGGC
CACCATGACAAGGTAGAAGGAGGCAAGGAAGGCTCCAACCAGTGTCTCAGAGGAAGCATG
GCCCTGGTGACATGCTGAGTTTACGCTTCCAGCCTCCAGAGCTATAAGAAGGTNAAATTG
TCTGTTTTCTNTNGGTTCCCTGTTACAGCAGCCTTAAAAAAAT

Sequence 2523

AGGTACCGCATTCTACTTCATTGCCCCGTGATGTAAGTGGACTCCCAACAATACCCGAGA
GTAGAAATCTTACAGAATATTTTGTGGCGTGGATGTGAACAACATGCTGCAGCTGTATG
CCAGTATGCTGCATGAAAGGCGCATCGTGATTATCTCGAGCAAATTAAGCACTTTAACTG
CCTGTATCCATGGATCAGCTGCTCTTCTATACCCAATGTATTGGCAACACATATACATCC
CAGTGCTTCTCCACACCTGCTGGACTACTGCTGTGCCCAATGCCATACCTGATTGGAA
TACACTCCAGCCTCATAGAGAGAGTGAAAAACAATCATTGGAAGATGT

Sequence 2524

TAGGGCGAATCGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAATGGGG
AAAGACAATCATTGAATACAAAACAATAAGCCATCACGCCTGCCCTTCCCTTGATATTGC
ACCTTTGGACATCGGTGGTGCTGACCAGGAATCTTTGTGGACATTGGCCCCAGCTGTTT
CAAATAATGAACTCAATCTAAATTAAGAAAGAAATTTGAAAAAATCTTCTTTTG
CCATTTCTTCTTCTTTTAACTGAAAGCTGAATCCTTCCATTTCTTCTGCACATCT
ACTTGCTTAAATTGTGGGCAAAAGAGAAAAAGGAAGGATTGATCAGAGCATTGTGCAATAC
AGTTTCATTAACCTTCCCTCGCTCCCCAAAAATTTGAATTTTTTTCAACACTCTTA
CACCTGTTATGAAAAATGTCAACCTTTGTAAGAAAACCAAAATAAAAATTGAAAAATAAA
AACCATAAACATTTGCACCACTTGTGGCTTTTGAATATCTTCCACAGAGGGAAGTTTAA
ACCCAACTTCCAAANGGTTAACTACCTCAAAACACTTTCCCATGAGTGTGATCCACAT
TGGTAGGTGCTGACCTAACAGAGATGAAGTGAAGGCCCTGGNTTGNNTGGTCATAATACAA
AAGNGCTAANTAATAGGATTCAANACTTGAANAATGGTGATNGGGCTANAANAATTGG
AGAANAATCCTCTGNATTGNGTGGATCGGGNGGGGGGATTTTTAA

Sequence 2525

CCGCGGTGGCGGCCCGCCCGGGCAGGTACCAACTAACCTCCCGCTCTTTATCTCCCCAAC
CTTCCCCTCCTCCAGCCTCTAGTAACCATTTCTCTCTACCTGTGAGTTGATTTTGAC
CTCCACATAAGAGAATGTGGCAGTATTTGTTTTCTGTGCCTGGGTATTTTCAATTAAC
ATACTGTCTCTGGTTCATCCTTGTGTGCAACGACAGGATTTGTCTTTTTATG
ACTGAATAATATTCCATAGCCATATACATACCATGTTTTCTGTATCCATTCATTGTTGA
TTGGCAGTAAGGTTGATTCCATATCTTGGCTGTTGTGAATATTACTGCAGTAAACATAGG
AATACAGATATCTTTCCATATACTGATTTCTTTGTTTTGGATATATACCAGCAGTGG
GCTTGCTGGATCATATGGCAGCTCTGATTTTAGGTTTTTAAGGATGGGTTTTTTTTTGC
AATGAGAATAAAAAATTTCCATGTATAAGAACAGTGTCTTTGAACCTTTGTTTATATCCTT
TGCCCA

Sequence 2526

CCGCGGTGGCGGCCCGCCCGGGCAGGTACAATACTTTCTGACTGTCCACTAAATGTCAA
ACTATTTAGACTCCTACTCCTCCACTGTCTTAGTTGATTTTGTGCTGCTGTTATAGAAT
ACCTGAACTGGGTAATTTATAGAAAACAGAGATTTATTTCTTATAGTTCTGGAGACTGG
TCAAGGGGATGGCATCTGGTGAGAACCTTCTTGCTACATCATCTCATGGAAGAAGGTGGA
AGGGCAAGAGGGGCACATATGCCCAAGAAAATGTGTGCACACACAAGAGAGGTGGAGAGAG
AAAGAGAGAGATAAATAGAGAGACGAAAAGGGGGCCAAGCTCATCTTTTATTAGGAATC
CATTTCCATGATCTCCCATGATAACAGCATTAATCCATTATAAGTGCAGAGCCCTCATAA
CCTAATCACTTTTTAAAGTCCCACCTCTCAACACCATTGCATTGAGGATTAAGTTTCCA
ACACATAAACCTTTGGGAAATGCATACAAACCATAGCACTACCTCCACTCACATCTTGCT
CTTCAATGTCAAGGTATATTGGTTGGTAAGGGAATATAAACACATGAAGACATGTCTCTC

Table 1

CTTTCATCCAAAGACTTACTGGAATTGNGTCAAGCTTCTTGTGGTCAGAAATGAGGNCT
TCTCTTTATTTTTGGC

Sequence 2527

GCGTTANACGACTCACTNTNAGGGCGAATTGGAANCTCCACCGCGGTGGCGGCCGCCGG
GCAGGTACGCGGGCACTGTAATGCTNACTTANCATTAACCTTTTAAGTTAAAGATTAAAG
GAACCAACACCTNTTACAGTAGAAATGCCCAACTAAATACTACACGTATGCCCCACCA
TTAATTACCCCATACTNCTTACACTANTCCTGATCACCCAA

Sequence 2528

CCGCGGTGGCGGCCCGCCGGGCAGGTACCCTTTTCAGACTAATTGGAACCTTGAGTCATG
GCTGTCACACTGAAATAATTTGTTCACTGCACTGCAAAATCAATATAGATCAACAT
GCATAAAGTTCAGTAATAATTAATGGGAGAAGCAAGCAAAAGCAACAGGAAATTTAAAT
CAGGATGCTGAGGGGGGAACAGGGATTGCTGGCCATGAATTTTAATTGAATTTTTGACGG
GGCAAGCTACGTTACATTATGGCAGCCCCCGTACTTTTTTTTTTTTTTTTTTTTTTTC
GAGTTTTATGATTTATTTAACTNGTGAACAAAAATAACCAGATTAACCACAACCATGC
CTTACTTTATCAAATGTATAAGAAGTAAATATGAATCTTATATGACAAAATGTTTCATTC
ATTATAACAAATTTCCAATAATCCTGTCAATTATATTTCTAAATTTTCC

Sequence 2529

CGAGGTACGCGGGGGGGTGGTGTGGTCCAAAGGACAGGCTGGATGGCGGGTGCATCGGCG
TGGGCGTGGTCAGCATGTGTCTGCAATGCCTGTGGGCTCTACTACAAGCTTCACAATATT
AACAGACCCCTGACTATGAAGAAGGAAGGCATCCATACCATAAACCGAAAAATGTCTAGC
AAATCCAAAAAGTGCAAAAAAGTGATGACTCACTGGAGGACTTCCCCAAGAACAGCTC
GTTTAACC

Sequence 2530

CGAGGTACAAAAACACAAGGAATACAACCCAATAGAAAATAGTCCTGGGAATGTGGTCA
GAAGCAAAGGCCTGAGTGTCTTTCTCAACCGTGCAAAAGCCGTGTTCTTCCCGGGAAACC
AGGAAAAGGATCCGCTCCCAAAAACCAAGAAATTTAAAGGAGTTTCTTAAATTCGACCTT
GTTTCTGAAGCTCACTTTTCACTGCCATTGATGTGAGATGTGCTGGAGTGGCTATTAACC
TTTTTCTCTAAAGATTATTGTTAAATAGATATTGTGGTTTGGGGAAGTTGAATTTTTTA
TAGGTTAAATGTCATTTTAGAGATGGGGAGAGGGATTATACTGCAGGCAGCTTCAGCCAT
GTTGTGAAACTGATAAAAGCAACTTAGCAAGGCTTCTTTTCATTATTTTTATGT

Sequence 2531

AGGTACTTTTTTTTTTTTTTTTTTTGTTTATGAAGACTTTTATTAATACAGTGTATT
ACAGATTATATCATAATAAAGCCTTTCATCTTTAGGCTAATATGATACAAAACCTAC
TTGGCCACATTACTTCTTGAGTTTCTTTTGGGCAGCTTCTTNTTTGACCATNTGTAAT
CCGCTTCATAGCATTGANCCCGTGATTCTTTGTGAAAGTTTGGGGCCCTTTAAGGGATGC
TGAGGGAGAGCTGCTGGATTCTGAAANNAATTTGCTNGGTAAGAACCTGCCCGGGCCGG
CCGCTCTTAGAAGCTTAGTTGGGATCCCCCNGGNGCTGCAGGGAATTCNATATCNAAGCTT
ATCGAAACCCGCCGACCNTCNAAGGGGGG

Sequence 2532

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGTCACCTGCGGTGGGCGCACTAGAG
GTCTTTTGAACCTCTCGGCTACCGTCGCCGCGTTCTCGCTGTGCACTCTTATTCTGCGC
CTGCGCGCGGCTACAGCACGGTTCGTTTTTCTTTAGTCAGGAAGGACGTTGGTGTGAG
GTTGGCATACGTATCAAGGACAGTAACCTACCATGGCTCCCGAAGTTTGGCAAAACCTCG
GATGCGTGGCCTTCTGGCCAGGCGTCTGCGAAATCATATGGCTGTAGCATTCGTGCTATC
CCTGGGGGTTGCAGCTTTGTATAAGTTTCGTGTGGCTGATCAAAGAAAGAAGGCATACGC
AGATTTCTACAGAACTATGATGTCATGAAAGATTTTGAGGAGATGAGGAAGGCTGGTAT
CTTTCANAGTGTAAGTAATCTTGAATATAAGAATTTCTTCAGGTTGAATTACCTAA

Sequence 2533

AGGTACAGCTGCTATCTTATTGGACTACAGTAAATATTTTTTAAAGGACACCAATGAGG

Table 1

GGCACCATCTGGTGTTAACCTTAACCAGAAAGCTGGTTTCCTCCTCCTCCCCCCCCGCGT
 ACTTTGGCCTCTCTGGGATAGAAGTTATTAGCAGGCACACAACAGAGGCAGTTCAGAT
 TTCAACTGCTCATCAGATGGCGGGAAGATGAAAGACAGATGGTGCAGCCACAGTTCGTTT
 TGATTTCCACCTTGGTCCCTTGGCCGAAACGTCCTAGGCCAAATCGTTGGACCTGCCCGG
 GCGGNCGCTTTTAGAACTAGTTGGGAATCCCCCGGGCTTGCAAGGGAAATTTCAATAT
 TCNAAGCCTTAATCCGATAACCCGTTGNGAACCTTNGAANGGGGGGGGGCCCCGGGT
 ANCCCAANCTTTTTTGGTT

Sequence 2534

AGNCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGCAGGTACTTTNTTTTTTTTTT
 TTTTTTTNTTNNNGGGNGGGTTGAGTCGGAGTCTCACTCTGTGCGCCAGGCTGGAGTG
 CAGTGGCACGATCTTGGCTCACTGCAACCTCCGCCTCCTGGGTCAAGTGATTTCTGCCT
 CAGCCTCCCAAGTAGCTGGGACTACAGGCAAGCGCCACCACGCCAGCTAATTTCTGTGT
 TTTTAGTANAGACAGGGTTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGGCCTCGT
 GATCCACCCGCCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCTACCACGCCCGG
 CCTAATTTTAACTCTTTATTCCTGTCTTTAAACATCCATTCATCTAATTTTAACTG
 NTTATTCTGNGTCTCTAAAGGATTCAATTCATTACCTAATTTTTCAAATACCGTTCTCAA
 GTCCTGGTTATAGACAAGGCAGTTATTGGAAAGCACACTATGGCAGGATTTATGGAGTGT
 ACCTT

Sequence 2535

CCGCGGTGGCGGCCGAGGTACGCGGGGAGTGAACTTTTACCAAAGACTGCTGTCTACTC
 TGAGGGCTGCTACCTGTGAGGCTTCAACTGCATAAAAAGACAGCCTTTGTCACCAAGTCT
 TTTTCCCCATCTCTCACCCATAACCTGTCACCATGCTCAAGCCTCAATTTCTTTCTATA
 AAATATAAAAACCTTTGTCATTTGGCTCTTCTTTCAGTCTCATATTCATAGACCTCTCGTG
 TCCATGTGCATATTGATAAATCTGTATCCCTTTTCTCCTGTTAATCTGTCTATTGTCAAT
 TCATTTCAGCAGACTCAGACTTCAACATTGCGGGGAAAAATTTGAACTTCTCTACAGTTTT
 GGTATCTTTGGCAGGATTGTAAGCAAATCACTCTGCCACACCCGAGGCTGCAGCCAGAA
 ACCACGGAAACTGACAGACACCAGCNNNNNANAAAAANNNNNNNNNNNNAAAGTACCTGCCCG
 GGCGGCCGCTCGACTTGAGCAGGCTACTGAACCATGAGCCAAATAAACCTTTT

Sequence 2536

CCGCGGTGGCGGCCCGAGGTACCACTATAATCTCTAATACTTACTCAGAATTACTGTGTA
 TTTACTTAATTTCTTATTATGTGCCTTATTATGTGCTTAAGATACAATAGGTTAGAGTTT
 AATCTAAATATCTTGAAAGCTATATTGTGGGCTTGTAAGCATTTTGTTTTTCTTTCTC
 TGTTTTGGTAAGGATTTAAATTTTTTTTCATTGCAATTTTAAGTGGTTTTCAATAAGTAA
 TAGTTTTATCAAATTTTTGGTGCTTGGTGCAGAGACGGTGTGGGGAAGGGTGAATGGTT
 TTGGGAATAATTCAGTGCACACCTGTAGGCCTCTTTACATTGTGACTGATAGGGGTATT
 GCATATCAATTTGGGGCTGTAGAGTGCAATCTCAAGTTTCATCTTTTACCCATCANAA
 TTTGTCTCAGGATTACTTGGTTTTTTCTCAGTCCTCAAGCCGAGAAGTTGCTT

Sequence 2537

GCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGGTCCGGAGAGACGCAC
 AGCTAAGATGTCAGGACATCCTGGAAGCTGGGAAAGGTAAATCTTGCTACTGCTCACTCT
 TTGGGTCCACGCTGCTTTAAGAGCTGTAACACTCACCGTGAAGATCTGCAGCTTCGCTC
 CTGAAGCCAGCGACACCACGAGCCCACCAGAAGGAAGAACTCCGAACACATCTGAACAT
 CAGAAGGGACAGACTCCAGACGCGCCACCTTAAGAGCTGTAACACTCACTGCGAGGGTCC
 GCGGCTTCATTCTTGAAGTCAGTGAGACCAAGAACCCACCAATTCCAGACACA

Sequence 2538

CCGGGCAGGTACTCAGGGATAATAAAAATGCAAACAAAGTTTTATGCACATAATACCCAT
 CACAGGGTTACTTATAACAGCAAGAATTAGGAGACCAAAAAAAGGTAGACAATATAAGA
 GGAATGGTTGGGAAGTCATAATTGGCCATACAATGGATTTTATGAAGCCATTAATAAGGA
 AGATTTTAATGTAATAGAAAATACATGAGATAAATTAAGTAAAAAAGCGTGACACAAAA

Table 1

TTGCACGTAACCTCACCCATCTTAAAGGATGCTTAATGATACTTTTCACTTTATGCT
TTCATAATATCTAAATGATCTACAATTAACCTACATTATTCTCTAATGAGTCAAAAAGG
CTTTTTTTTTTTTTTTTTTGGAGACAGAGTCTTGCTCTGTCATCCAGGCTGGAGTGCAG
TGGTCCGATCTCGGCTCACTGCAAGCTCAGCCTCCCGGGGTCACGCCATTCTCCTACTTC
AACCTCCCAAGTAGCTGCTTTGAACCCGGGAGGCANAANGTTGCAGTGAGCTGAGANCAT
GCCACTGCACTGCACTGCANCCTGGGAGACAGATTGGGACCCCTCTTAAAAAAAAAAGA
AANANGA

Sequence 2539

CCGCGGTGGCGGCCGAGGTACGCGGGGGTAGATGGAAGGAAGAACTTGTGTGCTTAGACC
TGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTGTAGGACCTATACGGCAACCTCC
TTTGCCAGGAACATTTTATAAACATCCTGCAGGAAAATGTCAGCAATGTGATGGTGTG
GAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAGAAGAGGCCAGAGAGCTTGCGC
ACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTGTCTGCAACCGGCAAGAGGACC
CTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGGCTTTCCAACCTCCAGAAGTGTG
AGAAGTATATGCTTGTGGTTTAAGTCAATGGTCTATGGTAATTTTTTATAGCAGTCCCA
GCCAAGACAGTGCCTCATTTAC

Sequence 2540

CCCGCGGTGGCCGCGCCGCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTN
GATGTTATTTTATTGGGTCTGTAATAAGGAGTAGGTAAAACATTTTNGGCTTAATAAGT
GAGGCNCAGCTTAAAGTTTTAAACAGCAATA

Sequence 2541

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCCTGCTGAAAGATTATTT
CTAACAGGCTTGTAGAGAAACGTCGGTTCATGTNAATTANAAATTATGGGGCCACTTTGC
CATTCTTCACACCTGCAATGAACAGGTGTTTATCTGNNGNNGTGAATTATCTCTTGAAGT
CCATTTGCATGGTATNGTGGGATGCAAGCTGATGCCCTGTCCAGATCT

Sequence 2542

TCGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGTCACACTCATTTACCCG
GGGACAGGGAGAGGCTCTTCTGCGTGTAGTGGTTGTGCAGAGCCTCATGCATCACGGAGC
ATGAGAAGCCCGCTACCT

Sequence 2543

ATACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAAATTAATTTAACAC
ATCTTTTGATAATCTCATCCTTGGTGTGGAAAAGACGGGAAAATCCAAAAGTGTCTATT
TTGTGCCCAAATGCTCAAGTTAATACTCGAGGGCCTTGATCTCTGGCCTCTTGCCATCCC
TCTCCCCATTATTTCTGAAGAAAGTANCCATTTTTTGCAGATTCCGGAGGGATGGGGAG
CCACGGC

Sequence 2544

TTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACNATATACAAAGACTNTGAG
CTGNNTGCCTCCGATGGTTTCCAGTATTGGCCCGTTGTAAAGCTCATTAAAGCCAACCTT
NACTTTNANTATGTGATTCTGCAGAATTAANTTAAGGAGGCGCTGATCCATGCTGAGAGT
ATCATNAGAAAANGGCATTAATCCACAAGGTGCCAANCAAAAGTTGTAATTTNNTTNCAT
CNTGGCTCTCANGAAGCAANATGCCAANGCNTTAATNTGGGGNACACCAAAGAATCCGTT
GAAAGGGNAGGTTTGCTTG

Sequence 2545

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCACCTTGTGGG
GCATGTTTGTATTTATTGCTTCATGGCCGACTGGAATCCTGAGTCCTGGGAAGCTGGCAC
TGCGGGGATCTTGCCCGGTGTCTGTCTCTTGTCTCCGTC

Sequence 2546

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTTTGGGTTTTGATTATTTGTGGTGCTAANAAGAAGGGAACATGGTTGGAGGCCCA

Table 1

NTGAGAGAAACAGTGCTTTGAATCAAAGAGCAGAATGATAGAACTGACTTCANAGCAAC
TTCTTGGCAGCAGNATCCAATTTGGAAGTTGAAGGTCTTGCTCTGGAGCCAGATGCTAAC
CNAACACAGCAAATGCTTTTCCTAAGGCACAATAGTCTTTTCANTGAGCTCAGGAACCC
TNTNTATGCCANATCCTCGTNTGAACCTTCTTGCTCCTTCTGTGCNTGAAGATGCCCACT
CCACAGANCCCGCNGTACCTGCCCNCGGCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
CTGCAAGGAANTCTATATTAANCTTAATTCGATACCGTTCGACCTNNGANGNGGGGGGCC
CC

Sequence 2547

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGGCGGGAGGCTGACGAGAGCCGGGA
GGCGTTAGCGAAGGAAGAGAAAAACCGAAGACGAAGCCACTACAGCCCCCGCGTACCT

Sequence 2548

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCGGGATGAAGG
TAAACCAACGTTTATTTTTTTTCCAAAACAGAGTCAGTTTGTGCTGGCCATCCAGGAAC
CACTAACACTACCCCTCTTAGTTTCATCATTAACTGTTACTGAACTTCCACCTCCAAAA
NACTGNATCCTTTTCTTATTTTTGGAGACCGTNTTGCTNTGTCACCCAGGCTGGAGTGC
AGTGGTGCNATCTTGGCTTACTACAGCCTNAACCTNTCGGGCTCAAGNGATTCTCCTACC
TNAGTCTCCANAGTAGTTGGGACTACAGGGGTGCACCACCACGCCAGCTAATTTCTGAA
TTCTCTGTANAGATGGGATCTTGCTATTGTTTCCAGG

Sequence 2549

CCGCGGTGGCGGCCGAGGTACGCGGGGACTACTTCCACTAAGACTATAATTACTACTGAT
GGTTATGATGATGTCCCAAACACGCCATCCTAACACCGGCTTCTTACCAGTTTGAAAACT
TTTAAGGCATTGTTTGAATCTCTTTAATCCTAGATACATTCTGCTTAAAGTCCTTCAT
TATTTTCTTTAAAGCGTAACATTATTATTTATCCACAGTTACTACCTTGCTCTTTAC
CAGTTAGCTTGTGACTGAATTACTGAAGCATTTTCTTAGCGGTTTCCTACTTTTACTTT
CTCTTTTGTAAATACTCAGTATTCTTCTGCCAAATGAATCCCTCCCATCTCTCCCTA
TGATATCTAACTTAAGCTCTGACAATTTGAGTGTGGGAGTAGTTAGCAGTGATTCTGGTG
AGGTAAGCAGGGACCAAGATCATAAAGGACCTTAAGT

Sequence 2550

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCAGCGGCCGCCCGGGCAGGTACGCGG
GGGCCACCTAGGTTACTTGTAGGACCCTATACGGCAACCTCCTTTGCCAGGAACCTATTTA
TAAACATCCTGCAGGAAAATGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAA
CAGTAGAAAAACATAAGAAGAGAAAAACATTTAAAAATGACAAGGGAAGTTAATGGAAG
TCAGCAATGTGATGGTGTGTTGGAGGTGGAGCCTTCAGAAGGTAATTAATGCCCTTGTAAG
AAGAGGCCAGAGAGCTTGGCACCTTCTTCTGCCATGTGAGGAGCCAAGAAGCCGGCTG
TCTGCAACCTGCAAGAGGACCCTCACTAGAAGCTAGCCATACTGGCATCCTCATCTTGGC
TTTCCAACCTCCAGAACTGTGAGAAGCATATGTTTGTGGTTTAGTCAATGGTCTATGGTA
ATTTTTTTTATAGCA

Sequence 2551

ACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCTTCTCATGCTC
CGTGATGCATGAGGCTCTGCACAACCACTACACGCAAGAGCCTCTCCCTGTCCCCGGG
TAAATGAGT

Sequence 2552

CCGCGGTGGCGGCCGCCCGGGCAGGTACGATGTCTAGTGATGAGTTTGCTAATACAATGC
CAGTCAGGCCACCTACGGTGAAAAGAAAGATGAATCCTAGGGCTCANAGCACTGCAGCAG
ATCATTTACCCCGGTACAGTTTAGGGGATCCTTTCTAATGACAGGAAGGCACTGCTTTC
CTCAACACTGTGATCTGACCTGTGACAAGTCTGTACCT

Sequence 2553

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGGGCAGCT
AAAATCTAGGATGGTGAAGTTTCTTCATTTGTCAATTATATATAAAAAATTAGAAAC

Table 1

AACATGAATCTGCATTTCTTGGATGAGATAGTTAATAACAACTATTTCTCAATATTTGT
NTACTAAAAAACTAGTGAAGGTGTTATGTGTTTCAGTATCTTATCTCTTATTTGAACATG
GGTTTCTGAAAGGAGCCTATNTAATAATATAAATGGTATGTAGTAAATGAGGCACTGTCT
TGGCTGGGACTGCTATAAAAAAATTACCATAGACCATTGACTAAACCACAAACATATGCT
TNTCACAGTTCTGGGAAGTTGAAAGCCAAGATNAGGATGCCAGTATGGCTAGCTTCTAG
TGAGGGTCCTC

Sequence 2554

CTCCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATGTAGA
AAATCCAGCAACGAAGAGCCATGGCTCACTGCTAATCACATAACACACACAGGAGTCTAT
TTATGCATGGAATGTGGCAGATTTTTTAACAAGAAGTCACAACCTTGTATACACCAGAGA
ACTCATACAGGAGAGAAAACCCCTATCAATGGCAGTGAGTGTGGAAAAGCCTTTTCACAGA
AGTCACTGCTCACGGTTCATCAAGAAGTCACTCAGGAGAAAAACCGCATGGGTGCAGCG
AATGTCAGAAAAGCTTTTAGTAGGAAGTCACTCCTCATTTTACATCAGAGAATTCATACTG
GAGAGAAGCCGTATGGATGCAGTGGAATGTGGAAAAGCCTTCAGTAGGGAAGTCGCAGCT
TAAAGACATCAGATAACGCACACAATAGGAGAAAACCT

Sequence 2555

NTTTTTTTTTTTTTNTTNNNNNNNGNGNNCATATTAATATANGGCGAATGNAGCTCCACC
GCGGTGGCAGNGGCCGCCCGGGCAGGTNCAGAGGACACACATTGTANACAGGCCTGTGTC
ATGTTTCTTACAGTCGTTTTTTACAGAGAAAAGGGGCATTGTTTTTCACTGCTTTCTC
AACANTTCTTGTGAATAAATGAAACATTTGCGAACTCCCTNGNTGNGCAANAGCCCTT
CNACTTTTGNNTTNTTTGCCGGGNTAGCCCNNGGGGAACCCATTGTTGGTTTGGGTGGAAA
TTCGNTGNTTTNNCTTGGTCGNGGGGGGGCCCCAACNTTTNNACNTTCAAAAAAATNN
GNACNAANCACNTGGGGAANGGGGGCACTTAGNTNTTTCGCTTATCCCCCTTTTAANNC
CAACCTTTTCNNCTTTTTCNACACCNCAAGTCTCCCTCGGNACCTTNTCCNTTATNGNNN
CCCNTTCCACCTNNNGCGCCCCNAAAACCTCAAGGNNANCCAACCGCCTTGCAAAA

Sequence 2556

TCACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACAGAACATGAGG
TTTCCACAGCGGAGTCTCCCTGGGCTCTGTTTGGCTCTCGGTAAAGGCAGGCCTACACCT
TTTCTCTCCTCTATGGAGAGGGGAATATGCATTAAGGTGAAAAGTCACCTTCCAAAAGT
GAGAAAGGGATTGATTGCTGCTTTCAGGACTGTNGGAATTATTTGGAATGTTTACAAA
TGCCCGCGTACCTGCCCC

Sequence 2557

ATACTTAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGCGGGGTAGATGGAA
GGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCTATACGGCAACCTCCCTTGCCAGGAAGTATTTATAAACATCCTGCAGGAAAA
TGCAGTGAAGTAAAAAGAAGACAGGGACATCCAGAAGGTTATGCAAAACATCAAGAGAA
GATGAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTNGAAAAAA
AAAAAAAAAAAAAAAAAAGTACCTGCCCC

Sequence 2558

TACTATAGGGCGAATTGGAGCTCNCCGCGGTGGCGGCCGAGGTACGCGGGGTAGATGGAA
GGAAGAACTTGTGTGCTTAGACCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTTG
TAGGACCCTATACGGCAACCTCCCTTGCCAGGAAGTATTTATAAACATCCTGCAGGAAAA
TGCAGTGAATAGAAANANAACAGGGGACATCCAGAAGGTTATGCAAAACATCAAGAGA
AGATGAGAGGAGTCTATATGTCAGAATACACATTTCCACCTTGCCCAACAGTAGAAAAA
AAAAAAAAAAAAAAAAAAGTTCCTGCCCC

Sequence 2559

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGCCCTGGGCCAATGCGTC
CTCGCTGGAGCCTTTGCCTCCTTCTACTGGGCCCTCCACAAGCCCCAGGACATCCCTACC
TTCCCTTAATCTCTGCCTTCATCCGCACACTCCGTTACCACACTGGGTCACTTGGCATT

Table 1

GGAGCCCTTATCCTGACCCTTGTGCAGATAGCCCGGGTCATCTTGGAGTATATTGACCAC
AAGCTCAGAGGAGTGCAGAACCCCTGTAGCCCGCTGCATCATGTGCTGTTTCAAGTGCTGC
CTCTGGTGTCTGGAAAAATTATCAAGTTCCTAAACCGCAATGCATACATCATGATCGCC
ATCTA

Sequence 2560

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTT
GGTTTNGCNCNGNGTT
TTTTTAANGGAAANANAGCCNCCNACCTNAAAANCNCCCCCCCCCTTGCCCNGNACCAAAA
AAGGAAAAGGGGNAANCNAAACCCCNCTNGGCCAGGGGGGGNAGGGGNTNAAAGGAA
AACCNGGGCCCCGNACNCNGGCGGGGGNGGGGGGCATCNGCNNGAAAANCNGGGCCTCCA
NCCCNAACTNGTGGGGGANAAAACNNGNCNGGGGGGCCCNCCNANAACANGGGACCC
CCNGGGAAAAAANNAATCCCNAGGGCNAAGNCTNAAAAAAAAAACNGGGGAACCCCCC
NAGGGGGGGGGGGCCCCCNGGACCCCCCAANNCTTTGNGGNTCCCCCTTAAANGGGG
AGGGGGG

Sequence 2561

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTGT
TGAGATGGAGTTTGGCCTTGTGTCCAGGCTGGATTGCAATGGCACGATCTTAGCTCAC
TGCAACCTCTGCCTCCCGCTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGG
ATTACAGGTGCCCGCCACCACCGAACCAGCTAAGTTTTGTATTTTTTAGTAAGAAGAC
GGGATCTCACTGTGTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCGCCCGNCT
CGGCCTCCCAAAGTGCTGGGACTACAGGCGTGATCCACTGCGTCCGGACTTAGTTTTAAT
ACTATCATTGAATAATTACATACAAACCTAGATTCTCTGTATATTCCAGATAAAGACAT
CTAAGACCCGGGAAGTTTAAAGTTCAAAGNTGGTGAACCAGAAAAAT

Sequence 2562

CTCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGATATATAACAATGA
GGTGCTCCATCAACCACTTCTGAAGCTCAAAGGAAATCCAAAAGCCTAAAAATTAATCT
CAATTATGCAGGAGATGCTCTAAGAGAAAATACATTGGTTTCAGAACATGCACAAAGAGA
CCAACGTGAAACACCAAGTGCCAAATNGAAGGGAAGCTGGAACACATGGTNTCAAACCG
AACAAGATAATGTGAACAAACACACTGAACAGCAGGAGTCTCTAGATCAGAAATTATTC
AACTACAAAGCAAAAATATGTGGCTTCAACAGCAATTAGTTCATGCACATAAGAAAGCTG
GCCACNAAAAGNCAGGATTACCATTTGTTTTCATTTTTCTTGGGAGAGGGAATGCCA
ACATCATCTTCTAAAAAGGAGAAAAATGAGGAGGATATTTTAATTACCAATAACCAT
TTAAAA

Sequence 2563

ATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGCTTTCCCCCAGTGCAAAAGACTG
TTACTTTATTATTGTATTCAAAATTCATTGTGTATATTACTACAAAGACAACCCCAAACC
AATTTTTTCTGCGAAGTTTAAATGATCCACAAGTGATATATGAAATTCCTCCTTNC
TTGNCCCCCTTTCTTCTTCCCTCTTCCCCCTCCAGACATTCTAGTTTGTGGAGGGTTA
TTTAAAAAAACAAAAAAGGAAGATGGTCAAGTTTGTAAATATTTGTTTGTGCTTTTTC
CCCCCTTACCTGACCCCTACGAGTTTACAGGTCTGTGGCAATACTCTTAACCATAAG
AATTGAAATGGTGAAGAAACAAGTATACACTAGAGGCTCTTAAAGTATTGAAAGACAAT
ACTGCTGTTATATAGCAAGACATAAACA

Sequence 2564

TACTATAGGGCGAATTGGAGCTCNCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TT
TTTTTTTTTTTTTTTTTTTTTNGGCCCCCNCCANNTTNATTNAAAANGGGNAAAAGG
NNCNTNTNNAAAAAAAGGGGGGGGGGNAAGNCNAAAAANCCCCAAAAACCCAGGGGG
NTNTNGGNAANANNAGCNGGCNNAGNGNGGCCNNNANNGGCNAAACCCNAAAAAAACCA
GGCCCNNGGGCCTTNGNAAANCNANCNGGTNANATTNNGGNAAGGGCCCTTTCCNC

Table 1

CCAAACCCNAAAA

Sequence 2565

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTT
TTTTTTGCTGGGTTATGCCCCGCTCTTCACGGGCAGGTCAATTTCACTGGTTAAAAGTA
AGAGACAGCTGAACCCTCGTGGAGCCATTACATACAGGTCCCTAAGGAACAAGTGATTATG
CTACCTTTGCACGGTTAGGGTACCCGCGGCCCGCTCTAGAACTAGTG

Sequence 2566

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATATTCATTGTANG
ACTTCCTGTGGATGAGCATGAGCTATCATGACCTCTTCTTCTTCCAAGACTGCAGGCTGC
TGAGAATCAAAGTGGGAGGGCTCTTGTGAGTCTGCTCGTAAATAGCCTTCAGTTCGATCA
TCTGTATCTACTTTCTCCTCNTTTTGTGGAAGNTTGAGGATTACACTTTGGACAAGTG
CTTCTTAATCTCCACATCATCATATTTTCAGGTTTCTTCTGATTCTTTTCTTCTTATC
TTTAAATTGTTTGATCAATGTGAAGGACATGTTTCAACAAGGAAACCATNAAATACAGGC
CTCCTAGAGCTGGTTAGACCTTCCACGTGGGAANTCAAATAGGCACTTTTCTTCTATG
TTTTNGAGAAGACAGAATGACTGNAAAAAGGTGGGTCTCTTTTTTCAT

Sequence 2567

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCACTATGCCTGGCTAATA
TTTTTATTTTTTATTTTTGTAGAGACAGGGTCTTGTATTGTTGCCAGGCTGTTCTCAA
ACTCCTATCCTCAAGCCATCCTCCCATCTCAGCCACTCAACTTGCTGGAATTACCAGCGG
AAGCCACTGTGCCAGCCCCAGACTCCCTTTTACCTAGTATATCATGTCTAATTTCTAAC
AAAAAATTAAAAAACATTGTAAGAGGAAAAAAGAAACCCCTAAAAACAACAAGCAAACA
AAAAACCCAAAAACAACAAAAAGTTTCAAGAAACAGAGCTAGCTGACAGAACTATATTAG
ATATGGCAGGTATATTAGAATTATCAGATTGGTAATTTTAAACAACATGACTAATATGG
TAAGAGTGATAATGGGAAAAAATAGACAATTTG

Sequence 2568

CCGGGCAAGGTACAGTATATGTATTTTTTAAGTGACCTCCTCTCCTCCACAGACCCCA
CATGCCCAAAGGCCTCGGGACTTCCCACCACCTTGCTCCACAGATCCAGCTAGGCCTGAC
CTGTGCCCTCATCCCGTCCCGCTCGGTCTCTGGCTGATCCCGAAGGGCTTTTGTCTTCTCCT
CTCGTCAAGTTCTTTGGGTTGTGTTTTTTTGTTTTTTTTAATAACTCAAAAAAAATAA
AAGACTTGGAGGAAGGGTGCAAGCTCCCAAGTGCATCTGGGGCACATGTTTCTTGGAAGG
GACTGTCTCGCCGACACTCGGGATTCCCTCTTGCCTGCATGTTGAGGCTATGGGTGACCG
TGGTTAGTGGGACAGGCAGTGAGCAGTNGAAAGTGCCTGAGTGCCCGAATTGGTGGGGGA
AGGCTT

Sequence 2569

GCGGCCGCCCGGGCAGGTACGCGGGACAGCGGCTTCCTTGATCCTTGCCACCCGCGACTG
AACACCGACAGCAGCAGCCTCACCATGAAGTTGCTGATGGTCCTCATGCTGGCGGCCCTC
TCCAGCACTGCTACGCAGGCTCTGGCTGCCCTTANTGGAAGAAATGGTGATTTCCCAA
NGACGANTTCATATCCCAATNTTGGNTCTTAANGACCTTGAAATTAACCAAAAAAGG
AAAC

Sequence 2570

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGNCAGGTACACAACAAGCN
NNGTCTNNCATAACTGAAACAGANGATTCTGNNTTAGAANAANGCCCATCTGAGCTTANG
AGCNTAGAAGGAAAAGAAGAAATATNAGGAGCTTTGTGCATCTTCTACAATGCCTGCAA
TTTCANAGCTTTCATCATNGCTTTANGGGAGGANTCTCATANTGAATNACNTTAAACCTT
TCTCGTCCCAAGATCATCAGNCTANAGTCGGAAGAAGAACCTGCCTCTGTAGCTGGAA
N

Sequence 2571

CATCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACCGAGCATGAACATCT
GCAGCCTCTTGCAGAATCACCCAGAGGGGACTGAATCATGGTCCTCTTGATAGGTATG

Table 1

TTCAGCAGAGTTTCCAGTCCTGAGGTGTATGAGGCCAGCTGGAGCTCATAATCCTTAATT
CCCGCGTACCTGCCCG

Sequence 2572

TCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCTGGCCACCGTGCAAAGCTTCCA
CTTGGTGCTGCGTGGGAACGCACCACCTGCCGTGGAACCTCCTCCTGCGGGGCAGAGGA
GGGGTCCCCCGCGTACCT

Sequence 2573

ACTCACTATAGGGCTTTTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTGGTTGGTCATTT
CCTTAACCAAGGATCAANGACAAAAGGCCAGACAGCTCACTGCACTGCCAGGCTGCACGT
CGGAAGCCGGGCTCCGCGCGACTGCCCCCGCGTACCTGCCCG

Sequence 2574

CCGCGGTGGCGGCCGCCCGGGCAGGTACAGCAGGGGTTGCTTTGGTCATTGCTGTGTTGA
ACAGTGACCTCCTTTCTTGACTGTATGCACCCATTGTTGATATGACCTCGGGTTCCCTC
CACAAAAGCCACCTGAAGTGATCTCTTCTTCAAATACATCAAGAGAAACCCCTTCCTGCA
TTTAGTTTTTGCCAAGTCGACCATCGATAAACTTGCTTAAAAAGCTGGAGGTTAACGGCA
GTTTCCAGGAAGTGTTCATCACCCTTGAGNCGGTGCTTTACAAAACCTCTCCTCACAGA
AAGTGATGGGCTCACCAAGTTTGTATCTCAGTGCATCTCTGTAGGATCCAAACAAAGCAG
CCTGTGCTCTAAGAAAGGCCCTAGCTACTCCATCACCCGTAGCTGTAGACTGCTTCTTCA
GTTTATTTTTCAAGGCCGAGACCACATCACTTGGTAGGTT

Sequence 2575

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGAGGGATTTCGGC
CTGAGAGCGGGCCGAGGAGATTGGCGACGGTGTGCGCCCGTGTTCGTTGGCGGGTGCCT
GGGCTGGTGGGAACAGCCGCCCGAAGGAAGCACCATGATT

Sequence 2576

CCGGGCAGGGTCCCCGGNANTTCCANAATTTTNCNTGGCNTCNAAGGTCCTTTGAGGNAG
AAGGCTCTGGGGCTTCTGCTTGTCCTTTGGAGGGTGTCTTCTGGGTAGAGGGATGGGAA
GGAAGGGACCTTACCCCCCGGCCCTTCTTCTGACCTTGCCAATAAAAAATTTATGGTCC
CAAGGGGAAAAAAAAAAAAAAAAAATAATTNGTTCTNNGCCGTTTNAAACTAGTTGG
ATCCCCCNNGCTTGCAAGAAATTAANNTNAAGCTTATTNATACCNTTCAAACCTTG

Sequence 2577

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTGTAGGG
ATGGGGTCTCGATTTGTCTGCCCAGGCTGGTATCAAACCTCTGGGCTCCAGCGATCCTCC
CGACTCANCCTCCTGAGTAGCTTGGGATTACAGGCACGTGCCACACACGTGGCATCATA
CACCCATTTTACAGGTGAGGAAATTGTGGTTACCCGACAGTAAGTGACTTGCCTAGGATC
ACACAGGTAGTAAATGGTGGAGCCAGTAGTTAAATCANATGAGTCCCTAAGTCTTCTGT
TCTCCCTTACTTGTGTTCTGTTTTTTGAATCCCTAANAGCTTTGTGCAATGCCCTGTCT
GCTGGATGAACCAACAAACTGCTTTAAACTCTACCAAAAAGTGAATCCCGCGTACCT

Sequence 2578

CCGCGGTGGCGGCCGCCCGGGCAGGTACCGGGAGGCTCGCATGTGTGGGTGCATGCCGT
GGCAGGAGAAGGCACGTTTATCCAGAGAGTTGATTCTCCTTAATACCAGGAACTAGGCA
ACAGCAGGGAGGGGACAATCATGAGTCTAGGCAGGAAAGGTCTCTGGAGAGAGGAAAT
GGCACACGCGCCCCCGCGTACCT

Sequence 2579

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTT
TTTTTNCCTTTTTAAAAAGTTATTTATTTATTTCTTTTTTTTTTTTTTTGGNAAGGT
GAATGCNCTTTTGGTTTTNGGTCATGTTCCGTTGGNCAAAGATAAAAACTAAGTTTANA
GATGAATGCNAAAGGAAAAAATATTTTCAAAGTCCCATNGTGAAAAATGTCNCCCAT
TTTTGGGCTTTTGGGGGTTNCAGTTGGGGTTGCTTGCTGTTTCCCGGGTTTGGGGGG

0

Table 1

Sequence 2580

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTGCCCCGACGCTTTATTAGCCATCGTTACAGTCTCTCGTCCACAAACACTGCCCA
GCTCCCTTCCCAGGGCACTTTACTGGAGGCAAGTGCAAAACACTGTGGTGCTTTNTATTC
AAAGAAACAGAAGATGTNGCTGTGGGTGGTANACGGGACAGCCCAGNTTACCCACCAAGT
TTACAGNAAGGATCCCGCAGTGAGCTTTGATACAGATATGAGGATAGATGACGGTAAAGG
GGGAAAAGAGTTTAAAATTATCAAGTTTCTCTTTGAAGTGCTTTTCCCAAGGCACTGT
GAAGAANACTGCTGCTAGCAATTTCTAGGGACTAAACACACCGATGGGAATATAAATAT
TTCAACACAAACCCCTGTTACATTCTTACAGGTTAGTTTC

Sequence 2581

CCGGTGGGGCNGGGCCCCACGGTACCCCGGTNTCCCTTCCANATGGGGCCAAAAAATA
TCTTNTTCCCAANACAAAANCCNAAAAATTTTGGGAAAGGAAAGGGGCCAAAAGGGNGC
CCNNNAAAAAACCCNNGAAAGGGCAATTTTNGGNAAAGGGCNNTTTTTTTAAAAATTN
CCTNGGGAACCCNTTGGGAAGNAAAAANTGGTTTTTACAGGGGNAAATTGNATTAAACC
TTNAAAAATTTTCTTAAGTNGGGTNAAGAATCTTGAAGTTACCTTGCCCCNGGGG
NCCGGGCCCGGCTTCCCTAAGAAAACCTTAGGTNGGGATTCCCCCGGGGGCCTTGCAA
GGGNAATTTCCGAATTAATTCAAAAGGCCTTAATTCCGAATTACCCGGTTCCGAACC
CTTCAGAAGGGGGGGGGGGCCCCCGGGTTACCCCAAGCCTTTTTTGGTTTCCCTT
TTTTAAGNTGGGAAGGGGGTTTTAAAAATTTTGGCCGCCCGCTTTTNGGNCCGGTTAAAA
TTCCAATTGGGGTNCAATTAAAGGCCTTGGTTTTTCCCTTGGTNGGTTGGAAAAAATTT
NGGTTTAATTCCCCGGCNTTCAACCAAAATTTTCCCCACCACCAAAACCAATTACCCG
AAAGNCCCCGGGGGAAAGNCCANTTAAAAAAGGGTTGGTTAAAAAAGGCCCTTGGG
GGGGGGTTGG

Sequence 2582

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGGGTCCAGGTTTTCAGAAGGTTTGATGC
TATACATTGTGTGAATTTTGAGGTTATGATGGTGGCCAGAGAAGGTTGGGAGGCATTAG
TGTAAGTGTGGAGGGATTTGTGTCTCACAGAGCATAGATCGTATTGTGGAATTCATTCT
TCACAGACTGTCTCCCTCTCTGCCAGGGTGACATTCCATGGGACGACAAGGATTTC
GGATGTTCTTCTCTGGAAGTCTCTGTTCTGGGGTGGAGTCATGTTTTACTTACTGCTCA
AGAGATCCGGGAGAGAAATCACTTGGAAGGACTTTGTCAATAACTATCTTTCAAAAGGAG
TAGTAGACAGATTGGGAAGTCGTCAACAAGCGTTTTTGTTCGAGTGACCTTTACACCAG
AAAACTCCTGTTGATGGGGTAAATCATTTTATTAA

Sequence 2583

GCCGAATTGGAAGCTCCACCCGCGGTGGCGGCCGANGGACTCTGGCGTTGGTAACAATGG
TTTCNNGGANCTTNGGNTNGTAACNACTGCTTCCNNGGAACTTCTGCGTTGTAACCACTG
GCTTCCCGGGACTCTGCGTTGTTACCACTGCTTTCGGGACTCTGCGTTGTTACCACTGC
TTCCCGGGACTCTGCGTTGTTAACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGCT
TCCCGGGACTCTGCGTTGTTAACCACTGCTTCCCGGGACTCTGCGTTGTTACCACTGC
TCTTCCCGGGACTCTGCGTTGTTAACCACTGCTTCCCGGGACTCTGCGTTGTTAACCACT
GCTTTCCTCGGTAACCTCTGGCGNTTGTAAACCAATTTGCTTCCCGCGTTACCTGCCCGG
GGCGGCCGCTCTAAGAACTAGTGGAATCCCCCGGGGCTTGCAAGGAATTTTCGATAT

Sequence 2584

GACTCCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACATCCAA
ATTGGGCTACGAAAAGTGGCAAGTTTGATTGTAGCATCATGTCTTGAGTGTCTATTGG
ACTACAGATTAGAGGATAATAAAGAACATTCATTTGAGGTTTCATTGTTTGGGAACCTT
TCAACGAAATGCTTCAAAAGAGATTTTNGGTGTCCGTATATACAAATCATTACTGTCTCT
TCCTGAGAAAAGAGGACAAAAAGAAAAGGATAAAAAAGCAAAAAAGATGAGAGAAAAGA
TAAAAAAGAAAAAAGTCCACCGTTAANAAGTTGAGCTTTTATCTTAN
AGGCAGCANAAGTTTTGGAGCCAAGGAATGAAATGATGAGGCGTCTTCAGGTAATGAA

Table 1

CTTCAGCTTGCAAGTGTGAAAGGGGCAGGGAAGACTGGCCAGCTGTCAAAAACCTGGAACAG
TC

Sequence 2585

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACATTTTACAAAATTAAG
TCACTTTGTAGGTATATAAAAAAGTTTAAAAGTTGGTTTATTAATGAGAGTAGTGNATTA
CATTTCTTTTCAAGCAGTAATTTAAATATTAACNGTTTACTTTTTTTTAAAGGCNATTT
ANCTTTNCAGCCTGGGACCAACATNGGNGAAACNCGTATTCTNCCAAAAATTGAAAAAT
TAGCNGGGCNTTGGGGGGNTCACNCCCGGNAGCGTGTTCCTTTGGGNGGGGGAAACCAA
TGNGTCTAAACNGNNGNNGGNGGACCGGNTATACCNACCTNTGNGGGCCTTTTTCCN
TAAAAATCCCNNAATTTGGGACCTTNGGCCNNGGCGNGGGCGNTTTTNAACNNGN
NGTGGGGGTCCCCCCCGGGCCNGNACGGGAAAATNTCAATNTTCCNANCCNTTTT
NNGNNTNCCCCCGGGCANNACCCNTTANAGGGGGGGGG

Sequence 2586

TACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTT
TTTTTTTTTTTATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTTTGGGCAACACT
TTATTGGGAAANATTTACNCNCGGGGACCTGTCNTAGGCCAAGCNANNAAGGGGCC
CAGGANCCCTGGGGTCCCNNGGGGGGCTNAAAATGGAACCCATGGGACGGCCNNTNTAAA
ACTAGNGGATCCCCCG

Sequence 2587

GGCGAATCGGACTCCACCTTNGGTGGCGGCCGAGGTACATTTCTTGTAGACTCTGTAA
TCTCCTGCAGCTCCTGNTTTGGTTTCTGGAGCANATGAATCTCAATGAGGAGAGTCCTCG
TCGGTTCAGCCCTTTATGGAAGCTTTANNCCTCAGAANCCTCATACTGAAACAGGCNT
TTTTCAANAAGNCCCNAAAAANACCCGGTTTTTCCAAGGGTAGGGCCNANAAAAAAA
GGGCCCNAACTTTNCAANATGCCTTGAAATGCCNAANNGTNTCCCNTTTTNAGGGGTC
CCCCCTCTNCCTNNGGGGNTAANNGGCCNAAAAAGGCCAAATTAANTCCCTGGNACTTCT
TGGNNGGCCAATTNNGGCCCCCCCGGCGNGGTAANCCCNNGCCCCCGNGGGCCNAAAGGNC
CAGCNTNCNTAANAAAAACNAAAGTNGGGNAATCCCCCCCCGGGGGCCNTGGCAAGNGN
AAAATTTATCCNAATTATTCAAAGGNCNTTTAAANCCNGAATACCCCCGNGCCNAAACC
CCTTNGAAGGGGGGGG

Sequence 2588

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCCGGGCAGGTACACTCCT
CATCATCACTGTTGCTTGAGCACCGAAGAAGAGTGGCCCAGCCTTTTGGGTGCAGCTGTA
AGGACGTGATGCAGTTTCCGTGGTCACTCTCACCAAGAACTTCAGGGGTTACGACTTCAA
GACTATTTCTGTTGAACTCCTGAACCTTTGAAGTAGTTCTTCTTGTCTTAAATGGGA
TAGCTGCCTACTTCTAAAGACTTAGTTAAGTCAAGGTCATGCAAAATTAAGAGATATCCA
GAGGACGTTGAAATCAACATTTTGAACAATCTGGTGTAACTCATTGCGATGAGAAAA
CGTGTGTGAAAGAATTTCTTATGTGGACACCCATCTTCTGTATACCTGTTAGTGTCCCAA
ATAATGACATTTCCATCAAATCCTGATGTTACTAAGAGTCTTGTATTAAGTATCA

Sequence 2589

AATTGTTGCTCCNCGCGGTGGCGGCCGCCCCGGGCAGGTACGCGGGAACATAAATTGATT
TCTCACTGTTCTGTGGGCTAGATTGGCAAAGATCAAGGCATTGGCATGTTTTATGTCTTA
TGAGGCCTGCTTTTGACCACTAAGATGGCACTTTGAAAGCTGTGTCCTCACATGGCAGGA
GGATGGAAGGGGAAGAATGGGTGAATGCAATGTGAAACCTCTTTAATATCATTATCCCA
TTCACCAGAGTGGAGCCCTTCTTACTTACCTCCTAAAAATCCTACCTGTTAATACTATAA
TATTGGTATATAAGTTTTAACATATGAATTTTGGAGAACATATTTAGACCATAATAATA
TTAATAGTTNCACCAGATGTAATAAATATCAAGCAATATAATTAATAAATTTCTACCTC
ATAAGTAAAACTACAGG

Sequence 2590

CNGGCGAATTTTTCTCCTNCGCGGGCGGCCGAGGTACGAACTTTTCTCCANAGGATANT

Table 1

TAGGTTGCACNTTGTATTTGTAACAGGAGCAAATTTGGACCTTGCCGGGGCCAAAGTC
GTGTCACGTGGAACCTCTTAATCTCAGCATCCGGAGCTCCAGGAAGGGAAAATTTCAAGT
CAGATAGAATTCTATATATACCATTTCTTTGGAACCTTCAGCCCTCAAGATTCCAACATC
ATGACCTCAGTTTCAACACAGTTGTCCTTAGTCCTCATGTCAGTGCTTTTGGTGCTGCCT
GTTGTGGAAGCAGTAGAAGCCGGTGATGCAATCGCCCTTTTGTAGGTGTGGTTCTCAGC
ATTACAGGCATTTGTGCCTGCTTGGGGGTATATGCACGAAAA

Sequence 2591

CCGCGGTGGCGGCCCGCCCGGGCAGGTACTGTGAGCCAGCACTCCCTGACCTCAGGGTGTG
TGAGGAGTTGGCACTGTAGAGAGAAACCAAGACTCTTCCTCAATGCCTGCCTTATTCTGA
GCACCCACCCCTTAGCTCTGATAAGGATCCCGGTACCGTGGCCTACAATGACACACAAAT
CCCATTAAATAAATTATAAAACAAGGTCAATTCAAATTTGAAGTAATGTTTTAGTAAGGA
GAGATTAGAAGACAACAGGCATAGCAAATGACATAAGCTACCGATTAACTAATCGGAACA
TGTAACACAGTTACAAAAATAACGAAGTCTCCTCTTGTCTACAATGAAAGCCCTCATG
TGCAGTAGAGATGCAGTTTCATCAAAGAACAACATCCTTGCAAATGGGGTGTGACCNCG

0

Sequence 2592

GGGCGAANTGGAGCTCCTTTGCGGTGGCGGCCGAGGTACTTGACATCCTTTTAGTTATC
TTTTTTTATATAAGTAAAGNTCACACACATAAATTCACTTGAATTTGATAATTTGGAACA
TTGGCAATGAATACAGTGCCTGTTGAGGCCTGAAAGAGAGAGGAAATCAAGAACAGTGTG
GGAGAAGAAAGGCAATCCTTCGTTGAAAAGCTTTTCTCTTAACAATCCTTAGTGCCTGAA
AAATAAGCCATTTTGTAAACAAGAGTATAAAAAGCCTTATGATCTGCAAAGTAAATCGTA
TCTGGTTTAAATTTTATCCCAAGTCTCAGGTTATGGCTGAGGAGCTATACTAAGGATCCT
TGNAGCNCATTTCTTTGAATTTTATACTAAGACAAGAAAATTTTTTATCAGATCTAG
GCAGAAATACTGATC

Sequence 2593

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TT
TTTTTTTTNANNGGNAANNCNNCANNATANNNTCCCNNAANAAAAAANATTAAN
AAAANGGNNANANAAAAAANTACAAANNAGAAAACTANAAAAAANGGNAANAA
ANATTNNTTTTTTCCCCAAAAAANNNTNTTAGGGGCCCTAAATTAANAAAAAATTN
ACANANNGAAAAATCNAAAAAAAGNANNGNAAAAAATTAANAAAA

Sequence 2594

GTGGCNGGCCCGAAAGTAACTTTTTTTNTTNNNAAAAANAAAAANAAAAACANANAGAA
NANAAAAANAAAAANAAAAANAAAAACAAANAAAAANAAAAACANAAAAANCANANAAAA
ANNAAANATANAAAAAACCAAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAA
AAANATAAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAA
AAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAAANAAAA

Sequence 2595

GGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCGGCAGGTACTTTTTTTTTTTTTTTTTT
TTTTTNNNGACTGAATCCAGCTTTATTAAAGATACTTCCATAAACAATCATGGTATTNC
AGGCNGGACANGGTGCAGACAANTGTAAACAGTATACAACAACCTTC

Sequence 2596

CGAGGTACATGAAAAAATTCATACTGGAGAGAAACCTATGAGAACCCTAACCTAACGC
TTCAGTTGTCCAGTCTTTCATGAGCATGAAAGGAGTCACATAGAGAAACCCCATGAAA
GTAAGAAATTTGGGAAAGCCTTCAGTCCTTTCTGTTTCTTCAACTACGTGAAAGGATTC
ACGGTGGAGAAAGACCCTGTAAGATAATTGGCTTTAAATTACGAGAGACTTGTGATAGGA
CAGTAAACCTAGAGTTGGAGTTGGATCTCTGGATTGTGTTATGTCAGTGTGGTAGGTT
AGGAAGTATGTTTCCGAGATCCATTCCATTGTGATTCCATGATACAATTCACCAGTAA
CCTATCTTTACATGAGATTCNGGAAGTAAGTTAAGAAAGGCATTAGTCATGGTTTGAAG

Table 1

CACCATACAGGGAGACAGCTGTGTGAATACAGGCTGTATGGACACTTGCTTCCATCCCAT
TTTCCTGCTTCTTTGGGTGGCAATCAAGAGTATCCTCAAAACGACTTGACTTTAATTTT
CT

Sequence 2597

CGCGCAGTCCGCCTGACTATACTACCTTTAGTAAATAAACCNCCCTTTTCNGGATGCCACT
ATCTCCGATGGCACTATACCCTGCTACCTTCTATACCACTAAATTAACCAACTCCCT
CCTCCTCCCAAGCNATAAAATAAAATATACAAACCCTGGGCCAAAATGANNAAAATCTG
TCNTTATTATTGCCCCACAATCCTAGCCTCNCGCCGAGACCTCGGGCGNTCNAACTAAGT
GATNCCCGGCTGAGNATCGTATAAGCTNATCGATCCGCGCCTCGANGGGGNCCGNACCC

Sequence 2598

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCTTCCTTGT
CTTTGGTTTCATTGTTTTTCTTTATCCCATTTCCCCCTCTAGTGGTCTAGAAGTAATAA
ATCCTAATACTGCGTTTGTAACTTGCTCTTACATATTTGTATGCAGCCAGTCACAAG
TGGAATGTGACTAGAAATCCTTGTTACTCAAGAGGCTGAGGTTGAAGGATCGCTTGAGCTC
AANAATTTGAGTCCAACCTGGGCAACATGGNGAAACCCCATNTCTAAAAGAAAATNCN
CAAACTAAGCTTGATTACTTTTATTTTCTCCAGAAACAAAAGAAATCNCNCTNTGC
TGNCATACTCACCTNCCCACACTGNTCCTTCAGCAACATATACCATTGTTTTAG

Sequence 2599

NGGCGGCCCGCCCGGGCAGGTACTGGCTTCCTTGTTAATCCTTTATCCCTTCAGGTGTTA
TTCAAATGTCATCTTCTCAAGAAGGCCTTGTTGTGATTAGTTTATTGAAATTATTCCACTC
AACTCCTATGTCTAACTATTCAAGTCTCCTTTCCTGCTTCAATTTTCTNCTGGGCTT
CNTACCACCATCTNAACTTGGGAAACCATGTAATATTGTTGACATTATTTGGGCTTAGN
ATTAATTTTCACCCCATTTNAGCCATNGTAAACCTCCACGAAAGGCCTTTTATTTACT
GCAAGTATTTTNTGCCACCCTAGAACAGTATTTGGGTTATATAAGCAAGGTCACTTTAA
AATATTTTGTNTGAATGGAAGTGATGTAAGAAGGAAGGGTTCCAAAAAAGCCCACTTGG
GAAGAATGGTCATGGGCTTTGACCCG

Sequence 2600

CAGGTACAGTGGATTTTTCATTTGCAAAGACGTTAAGCCCTCCAAATGTGCAAATCATGA
AGTCAGTNGTTGTTCCAGCAAGGTTTGGCCAGCGGTAAAAACAAGATAAACTAATGCA
CTAGCTGAAACCAGGTGGGGAGACCATGTGTGGTAGTGCTTGGGGGTGGAGGGAACTAT
TTCTGAAATGAGGACTTAAAGTATAATACCAGCTTCACTGCCTGTTACATGAGAAACCA
AAGCTTCAATTTAACTGCANGCAATAGGAGTTTCACTGTGAGCACCACCTGTCTAANA
TNCAAACTAGTATCTAAATGTGTAGGATCAAAACCAAAATCTGGAGGGATCTAGTTAA
ACTTCAATATGCATGACCCCAAGATTCCCN

Sequence 2601

AGGGCNAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCTTCTTTCTGGCAG
TGAATGGTCTGTATTCTCTAGTGATGATGTGATCGAATTAATCCATCAAATTTCAACC
GAGAAGTTATTCAGAGTGATAGTTTGTGGCTTGTAAGATTCTATGCTCCATGGTGTGGTC
ACTGTCAAAGANTNACCCCCCNANTTGAAAGAAAAGCCAGGCAACCTGCATTTAAAG
ATGTTGTCAAAGTTGGTNGCAGTTGATGCAGATAAGCATCATTCCCTAGGAGGTGAGTAT
GGTGTTCAGGGATTTCTACCATTAAGATTTTGGATCCAACAAGAAACAGGACCANGAA
GNATTACCAAGGTTGGGCAAGAACTGGTGAANCCATTGTNAGATGCCTGCGCCTGAGTGC
CTCTGCGCCAG

Sequence 2602

CCGCGGTGGCGGCCCGCCCGGGCAGGGTACAATACAATCTAGATGACGGTGCAGACTAAGT
CAAGAACTAAAGTTGTGCAGTAACCCGAGTTAAGGCATGAATGCAGACACACATGCAC
ACACACAGCACCCATGCTATCAAGACACAGGATTTTTTTCAGTTGCCTCATGAGAGGGCAA
CCTGGGCTTGGCAGTTAATCAGAACTGCTGAGCATTCCAGAAAATGCCCCCAGCACTTT
ATGCTAACAGCTGTGTGTATGTTTTAATCAAAAAATTAAAGAAGAAAAAAAACCTAAA

[illegible]

Table 1

CTTAGGGCAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGGGCTGC
ATGCTGTGGAGGAGGGTTTCAGAGGAGAGAGGTTCGGAGAGCAGAGGCCCTGAGAAGCCAGA
GGCAGGCTGGAGAGAGGGTGGAAAGTGAGCAGCGGGCTGGGCTGGANCCGCACACCGCTNT
CCTCCCATGNTAAANCCGCCCTTTAGAAAAATTCACAAAGTCCCCCTTCCNAANTAAA
NNNANATATATATTTTAAAGTTACNCTNNGGCCGCTCTAGAAACTATGGNGGGNANTCC
CCCGGGGCNTGCAGGGNAAT

Sequence 2610

[illegible]

Sequence 2611

TCCCCGCGGTGGCGGCCGAGGTACGCGGGTGTTCTTTTTGTCCAAAGTCTATTTTATT
CCTTGATATTTTCTTTTTTTTTTTTGNGGATGGGGACTTGTGAATTTTCTAAAGGT
GCTATTTAA

Sequence 2612

GAGCTCCCCGCGGTGGCGGCCGTTTGAGAAGCCAGCGCTCACCCACCCGGGGTCTCTGTG
CATTGACCTTTGGGTGCTGACTTGGAGAAAAGCACAAACACGACCAGTCCCATCCTGGCT
CCCGTGGGGCTTCTTCTATCTACGCATTGTATCGACTGCATTAGTTGGAATAAGAAGGAN
GCNTCANNTTAAAGGGNAGAGACAAAATGCCTGACTGGTCTAAAGCCAANGAAATGGG
CCCCAAGCTGGGCAAGNAAAAGACCACCTGCATACATAGGATACAGAAGGCGAGAGC
TTCTGCCTGCGGACTGCAACATTACATNTTGTTTTGCCTGCAAACTATCAAG

Sequence 2613

CCGCGGTGGCGGCCGTGGGACCTGCAATNACTACGCAAACNCTTACAGCTTTTGGCTCGC
CACCATAGAGAGGAGCGAGATGTTCAAGAAGCCTACGCCGTCCACCTTGAAGGCAGGGGA
GCTGCNCACGCACGTCACNCCGCTGCCAAGTNTGTATGAGAAGACATNTNGAAANCCCT
GGANTNNCTANATGTNAACAACATTGGTGCNTACTTTCTTCTTTCTTTTGTNTAACC
AGCAAACNAACCTTAANAAATTATANNCNGTGTGTACCCTCGGCTCGACTTCTAGNA
ACCTANGTGNGA

Sequence 2614

GAGCTCACCGCGGTGGCATGCGGCCGCCGGGCATGGTACTCCTGCCAAGGCANGCTCCC
ACCGCTATGGGCACAAGGAAGTTGTCGTCATCTGCACTGCANNCTTGAGCTGTAGAATNC
T

Sequence 2615

CTACTTAGGGCGAAT TGGAGCTCCCCGCGGTGGCGGCCGAGGTACCATTGGTGGCCAATT
GATTTGATGGTAAGGGAGGGATCGNTNACCTGATNTGTTATATNAANGANTCAACGGGCT
GAACAAGGAACATCAGCATCCTTTATGAAATGGATCCCCAACATNNAAGACANCCGTC
TGTTACCATNNACCTNNNTNNGGCTNAAAAATGGCAGTCACCTTCATTGGCAATAGCACA
GCCATCATCAGACTNNNTNNAAGCGCATCTCGGATCANTTCACTGCCATGTTCCNCCGGAAG
GCCTTCCCTCCACTGGTACTT

Sequence 2616

CGACTACTTAGGGCGAATTGGAGCTCNC CGCGGTGGCCCGCCCGGGCAGGTACGCGGGGT
CCCAACCAAGCCCTCCAGCAAGGATTCAGAGTGCCCCTCCGGCCTCGCCATGAGGCTCTT
CCCGTCGCTCCCGGTCCTGGTGGTGGTTCTGTGATCGTCTTGGAAGGGAGTGGTTTTC
NAGACATTTAGAAAAGTGAAGGAGAACTCAAGATTGACTCATGAGGACCTGAAGGGTGA

Table 1

CATCCCAGGAGGGGCTCTGAAATTTCCACACCCCAGCGCTGTGCTGAGGACTCCCTC
CATGTGGCCCCAGGTGCCACCAATAAAAAATCCTACCANAAAAAAAAAAAAAAAAAAAA
AAANGTACCTCGGCCGCTCTANAAC TAGTG

Sequence 2617

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTTTTNGCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTANCAAAAA
NAGGGNNGAAGTTTNTTTNTTANCCCCNTTGANACNTTTGAAATTGGAATTGGTAA
AAAAANAAACAAAAAGCCTTTGAATTGTTTTGGGGGANCNNCAAAAAANANAAGTTT
CNTTTTTTTTTNNCAAATTTACTGNTTCCAAACNTTTGGAAANAAANAAGTGAATTT
TGNNGGNCNCTTGCNCTGGTTGNCNANATTNNAACAAGAGGAACCCNTTTGGGGTTAA
TTTTT

Sequence 2618

CCGCGGTGGCGGCCGAGGTACCTGTGTCAGGAGTCCCCAAGCCCACTCCCAAAATAGAAA
ATTAATAAGGAGTCAAAGGATTGAGCATACAGTAATTAACAATAAGATTTATTC
CAGCAGGATACAAAGCAAAATAAGAAAGGAAAGTCCGATGGGGCAAAATCAGGTGAAAG
CTTCCAAGAGTCTCTCCCAATGGAGTTACACAGGATGTGCTTAATACCTCCAGCAACCA
GTTGTGACAATACATGCAAAGAGTGCAAAGTCTTGTCCACGACGGATGTTCTTTTTTTT
TTTTTGGAGAAAGCCTTGCTCTGTCAACCCAGGCTGGGAGTGTGGCACCAGATCTGGGTGA
GAGCAAGACTCCCGTCTCAAAAAACAAAAGAAAGGAAAGTTCCAGTCTTGTC

Sequence 2619

CGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTACAGATGCTTCAGTTTAATAGTTGTTTTAAAT
TTTTTTTTTTTTTTTTTTAGGNTTAGGCTGAAAACNTAAAGCCTGCTGCTCCTGGGTN
TNATTTCTCAGCTTNTCCTTACAGCTNTAGTACATANAATACTCCTTTTTTAAAGTCTAA
NTAGCTTCANACCAAATCGGTCTGACCCAAAATACCTGCTNNTNTGGANAGNGGGATGGG
GAGAAGGTAAGTAAAGAAATGCAAGATCNTNTTACCCCAACAGCATAAAACCNCCCTAGC
TGGGGCTNTGGCTGGGAGGGAAATGCTAGTCATTTTTTCC

Sequence 2620

ATTGGAGCTCCACCGCGGTGGCCGGCCGCCCGGGCAGGTACGCGGGAAGAAGGGACAAAA
CTAAGGGTAAGCGAACTTTGGTTCTAGGAATGGCAAGACCAGCAAGAAGATCACCATTGC
CAACTGTAGCCTTTACACAATGTCATAGTAGCCCAAATTCAGTCAGCTATTGAATTAAGT
TTATTGGCTTCTTTNNCAGNTAAAAGAATGTATGAATGCTTGCTTTAGAAGATAACA
TCATATGGAGGTTCTACAACCTTTAGACACAATTGTCAAGCTTTTAGTAAATATACT
AGACATTCAAGAGATGGGATTGAAAACCAAGAGAAAGGGCAGACAATAGAAATATACTCA
CAGATGATTGAGGAGTGAAGTAAAGACCAGGACTTGAAATAACAATGATAATTGTTCAA
GAAATAGAAAGACAGGGGAAAAAAAAAAAA

Sequence 2621

NCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTT
TTTTTTTTTTTTTTCAGGAAGTGTATAATTTGGATATTGAAGTGTCTACTTTTTTTTT
TAAATTTTTATCCCCCTATCTTTGCCCTGTTCTTCTAAGTCTGAAAATTTTTCTTTTT
TTCTTTCAANGTTGNNGTCTAACTTNTAATNNNAGGTTTAAAGACCTGCTAATATGTA
TTTAATTTCCAGGTTTTTNNAGTTTTCTATTTCTTTTACATAACGTTTCTTCTGCTTC
AGTCATATAATATCCTGNGTTTCTGAATATTAATCTTCATTNGTTTGAACATTTTTTT
NTTACCANATGAAGAGGCTGATTGATTNGGAGTTTTCTGGACAGGGATATNCATGAGNC
CTTTTT

Sequence 2622

AGGTACGCGGGAGAGTTCTGCCTCGCTTCCCGGCGCGGTTCGACGCCCTCAGCCCACTTAG
GATAATGGCGACAGCTGAGGTACATTGTGATACAACTTCTTCACAGATGAAGGCCAGCAG
AGACAGCAACAGCTGCAAGCCCTTGAGAACGCGCCGGAGCAATGGGAGCCGGCCCATGAA

Table 1

AAAGTAGGCAGCGAGGCCGCTCCGGGGGCTCTGGCGGGGCCCGGTCTCTCCGTAGT
GGGGCTGTACCTGCCCC

Sequence 2623

AGGTACGCGGGAGAGTTCTGCCTCGCTTCCCGGCGCGGTGCGAGCCCTCAGCCCACTTAG
GATAATGGCGACAGCTGAGGTACATTGTGATACAACTTCTTCACAGATGAAGGCCAGCAG
AGACAGCAACAGCTGCAAGCCCTTGAGAACGCGCCGGAGCAATGGGAAGCCCGGCCCATG
AAAAAGTAGGCAGCGAGGCCGCTCCGGGGGCTCTGGCGGGGCCCGGTCTCTCCGTAGT
GTGGGGCTGTACCTGCCCC

Sequence 2624

CCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGGCAGATTCATGTTGTTTCTAATTTTTT
ATATATAATTGACAAAATGAAGAACTTAACACCATCCTAGATTTTAGCTGCCCAAAGAA
TGAAAAGAATGAAAAAAATCTTTGAAAACCCACAAGTGATATGGATCTAATTTATGGT
TAAATAGATATAGATAACAAACAGAATACGCCTGTTTAAACTGTTAAATGACATTGGT
TCTAATTATACTTTTATTTAAATTGAAAGACAAGGCATTTATATGGTATCTCTAACCATC
ACAACTTTTGTGTGACAAAAAGAAATTATCACCAAAATACACCTCCTTAAGTAAGTGTCT
GATTTACACTTCCAGAAAAAGTGCTCTTCTGGTCAAGCCAGCAAGAATTGAGAA

Sequence 2625

CCGCGGTGGCGGCCGAGGTACGCGGGCTCCCAAATCCTGGGGTTACAGATGTGAGCTAC
CACTCACGGCCCAAATCTTCTTGATCATATGTTTAAATATATTTTTTAATATTTGGAGCA
TGAGTTGTCACTTCTTGTGCTTTTTTATAAGGAAATGTTGGAGAGTTACATCATTGC
TAATGTAGAAATGTTAAGTGGGAAAAATATACAGTTTGGTAAATAAACTAGATTCTACA
TTTATTTGTGGGTTTTTTCCCTCCTTTCTTCCACAGCACTTTTGATATCAAGCAAGT
GGCTTCTTTTTGAGATATTAAGAAAAAGAAAAAGGAAAAAGTAAATGAAGCCCAAC
TACCTAACCTTTCTTATTTGATTTGTTTGTAGTATTGTGAAGTTGTGTTAAATAGTACC
TGCCCC

Sequence 2626

CCGCGGTGGCGGCCGAGGTACTGTTCCCTTCTGATTTGGTCTAGATACCAGAATCCATTC
TCTTCCGTCAAACGGAAGACACAAGGCACCTGAGGCTGATCCTTCCCAGAAATTAAGTCC
AGAGGCTGCCACATCTGGTATGAGCGTCCAAACCCAGCATCGACAATGTAGTTCCTGCCA
TCAATGGTCACCTGCAGGAGAAGGTGAATCATGCCAGTGCTGTATTTTTTGGCTGGAGTG
CTGTAAACATACCCTCCCAACATCGTGGTCTCAAAACCAATAGTGGTCAGAGCCCAGTAC
AGAAGATGATTGACCTGGAGACACCATCCACCCCGATTCTTCTCACAACCTGATCAAAA
ATGGCCTCTAAGCCTAAGTCCATGGCATCCCCACAATGGGATGTTAAGGTTCTCAAAGG
AACAGCTTCGGATCTGGTGTGAAGAATGTCAGTTAATGTT

Sequence 2627

ACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
TTTTTTTTTTAATTTTTTTTTTTTTTTTTTTTTTTTTTTTNCACCTCAGAAGGGGNCCT
TATTCATACTTGTTGACATTTCCCATGGGGAATGGTTNAAGGGAGGGGCAGGGAGGGCTN
ANCGGNAACCCACGGNTTGGTTTTCCCTCCATCCCNNGGGGAAAAAACTCTGGTAGGG
NCATNCTAANNAAANGTGANCAAGGGGANCCATCANTATGTGGGGCTGAAATNCACTGGNC
AGTGACTTNAGGCAACCGAGTCTTTTGTGAGGAAATGCAATTTNTAAGNGGAAAAAA
ANCAAGNCCCAAAGAAA

Sequence 2628

CCGCGGTGGCGGCCGAGGTACTCCGAAACAAGTAGAAAAGTGCTGTTTGAGGGATTTTAT
TAAATCTTTTTTAAATGGAATGTGGTACAGTTAGCTGTCACTCAGCTGACACCATGATGT
GGCAGCAGAGAGGGAAACCTACAAGTGGTTTGCCTCATTGCCTTTGCCACATCTGAAGTT
CTCAGCAGCACTACCTTAGACTTCATGAGCTAATAGGAACTTTTTATGGTGTAATGCT
GTAAGACTTTGTACCTGCCCC

Sequence 2629

Table 1

GGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCCGGGCAGGTACTTTTTTTTTTTTTT
 TTTTTTTTTTAGTAGAAGCAGGGTTTTGCCATGTTGCCCCTTGCCAGAATCAATTCTAA
 TTATAGGAAAAAAGTTTCTGAGTAATCAAAATTTGCACATATTTCTGGNGGATTTTATA
 GTTAGCTTAGGAACTTGAACCTTACTGAGTTGGGTCTGCCCATGTANGATGCCTGGT
 GTTGGTGTGTGCGCTCTCTTGGTTATAGAATAATCCACCCGAATTCTTACCATCCAGC
 TCCATTCCATTTGCCCTTTCCATAGCCTATAAAGAACAGGCACAAAAAGTCACCGTATAA
 TTCACAGTCTTGAAGTAATCATTACTTAAATTAAGCNCAAAGTNTATGTAATCCAAAT
 AAACCTCTGATTTTCAAAATGACAGCAATGTAGCTTGACAGGGCATTGTAT

Sequence 2630

CCGCGGTGGCGGCCGAGGTACTTCCTCACAGTTCTCACATATGGAAAGGATACACACTTT
 GTAGAAACAAGAACTTTATGTTATCCAAGTTCTAGGATAGCCATGAGCTCCAATTATCTC
 AGAGCTCTGAGTCTCTACTCAATACCCATTGAGATTTATGTGTTCTGAGGCTTTTGTCT
 TCTAGCTACTTACTTCATTCTCCATGGGTAACGGTCATTTCATCCACATTAATAATTTCC
 TCACTCCAAGCTCTTTTCTAGAGATAATCTCCAGTCCCTGTGCAGAACTGTCATTGCAC
 TTTCTGCTGAAATGGCAGTTTCTTCTCAGCAAGGTGAGATTATGGAATCCAGAATCTTTT
 TTCAGGGGTACATGCCCATTTCCCACTTGCATGAATGTGACACTGCAGCCACAGTTT
 TGGCCGTAAATGTGAATTTGGCAAGTAACCA

Sequence 2631

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTGTGCTTAAACAACAGCCA
 TTTTATTTAATATCTCATGATTTTGTGGTCAGGAATGTGGACAGAGCTCAGCTGGGAGAT
 TGTTCCACTCCATGTAGCATCAGAAGACAGGTCTNTTGGTGATATTCAGCTGGAGAATAA
 GTTAATATGCAGAGTTCAAGATGGTTTTCACTCACATTGACACCTTTGGCAGGGATGGCT
 GGAGGGCTGGGCTCAGCCAGATCAGTTAACTGGCGTGCCTGCATATGCACTCTCCACCAT
 GGTGGGTCTCTAGAATTGACTCAAATTTCTAAGAATTTGGCGATTGTATCCCGTCAGTCCA
 AGCAAGCTGGTTTACCGGGAACCAACCCNAGNCTGCAAGGGCCAGGGCANCCGTGCCTGCA
 AGGCCGTANCATATTGTTTGCTG

Sequence 2632

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACACTTCAGTCTCAATTCTG
 GAACTCTAAGAAAAAACGTTCCAGACTTCTACGCAGCTGCCACCTCGGAGGACGGGAGAG
 CGGGGGACGAGGAAAGATCAGGATAAGACCCTAACTCCCACAAATGACTCCAGGAAAGGG
 AGACCACCACTCCCCGAGCTTTGGAGCGCCGCGCGGGACCCGCGTACCTGCCCG

Sequence 2633

ACTNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTT
 TTTTTTTTTTTTGGGAGGCTGGAGTGCAAGTGGCGCAATCTCTGCTAACTGTAACCTCTG
 CTTCCCAGGCTCAAAGGATCTTCCACCTNTCCTTTGTTTAGCTGGGACTACAGTAGGGC
 ACCACCATGTCCAGCTAATTTTCGTTTTTTTANTAAGATGGGGGTTTTGCCATGTTTCT
 CAGACTGGTATCAAATCCTGGCCTCAAATGATCTTCTACTTAGGCTGGCCAAAGTGCT
 GGGATTACAGGCATGAGCCACCATGCCTGAACTTTAAAAAGCATTCTACTATATGTTTT
 TCTTTTGTATTACCAAAAAAATTTNTATTTAAAAATCTTTTAAAGTTCATTGAGCAGAA
 GGAATTAGTCAACTTTAANACATGTTATTTAAATTAGCCACTTGGGGAAACAA

Sequence 2634

CCGCGGTGGCGGCCGCCCGGGCAGGTACGCGGGGAAAACGGAGTCCCTGAAATAACAGAT
 GCAGCCACAGATCAGGGCCCTGCAGAAAGCCACCCACTTCCCCTTCATCAGCCTCTCGG
 GGTATGCTGTCTGCCATACCAATGTGGTTCAAAACACAGGTAAAAGTGCTTAACTGGA
 GGCCTTGATGCGTTGGAATTCATCGGCAAGAAAACCATGAATGTCCTTGACAGAAAGTGAC
 CCGGGCTTTAAGCGGACCAAGACGCTCATGGAGAGAACTGTTTCTTGTCTCAGATGTTA
 AGGGAAGCTAAGGAGAAGGAGAAGCAGAGACTGGCACAGCAGCTCACGATGGAGAGAACC
 GCGCACTACGGGATGCTGTTTGTATGAATATCAAGGCTTGTACACCTGGAAGCCCTGGAA
 ATTCTGTCCAATGAAAGCCGAAAGCAAGGT

Table 1

Sequence 2635

CGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGNTTTTTTTTTTTGGGA
NANACCANATTNTAAGGAANATCCCCTCGGGGGAGCTCCATGGTGTGCATTTTGGCTTT
CANGGTATAAAGGGGAAACAATAGGGAAAGACTTGGNGCAAAGGGAAGGAACANAAAC
NGACAGATGANAAAAGGAAGATGACANCATTGCAAGTGTTTNTTTAAATCCTNGCCANGC
CAGGCTTTGTTTAGCTACCCTGGTCTNTTCTGCATACCCCAACCCCGTTTCTGGGGA
ATGGGGAGCAAAAAACAGGATCANAGCATGATCTGAAAAAACACTGAACCTTCTCCCTG
CTGGAACCCCAAAACCCACCCCGGGT

Sequence 2636

CCGCGGTGGCGGCCGAGGTACGCGGGATATACAGAAATGAAATGACACTTCTGGGAGGCA
GTAGAAGCAGGAAGTCAATGAATTGAGTAGAGGGTCCCATTCCCTCAGGCTGTCATTGAT
CAGTGACAATTTATAAAACAAACTGCAAAGTCTGTGGCAAGTGGCTGCCTGCTTCCTAN
AAAGGAGCCCATGAAAGGTTAACTCTGTGGTCCGTATTGCAAGCGCCGGCGTGGTGG
CTCACGCTGTAATCCTAGCACCTTGGGAGGCCAAGGCAGGCGGATCACCCGAGGTCAGG
AGTTTGAGGATTGCAAGCAAAGGTCCTCTCCTGAGTCTTTCCCA

Sequence 2637

TNCTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGAGGTACTAACAAATGCAGTAGC
CAACAAGATTACCATGCAATCATTAAAGGAGAACCAGTAAGAGAGCCACTCAAACCAGA
TTTTGAACGCTACTAAAATTAAGTAGTTCTTTGATGAATATGAATGAGTAGGGAAAAGGA
TTCTTTGTAATAGTGATACCTCTGGGGNTAANNAGAAGGGNGGTATGTGAGTTTGTCT
ACAGATTATGGCAAATTCAGTGACAACAATCAAATGGTCTAAGATTGACAGTGGCACAGT
TTTACTCTGTGAAGTAATGTTCAAGGACAAATTTCAAGAAAAGTAAAAACCATCTTTA
CAGCTGAAATCTTTCCCTAACCATTTGTTATTTCCACTTTTAAGTCTCAAGAGATGAGAA
AAGGGAGGTAAGGCTTCCTTATACATTTCTGCACAATGAAACATTTTCTCCTCCAGG
CAAAGATTCAAG

Sequence 2638

TAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACGCGGGGAGGTATG
AGCGCCGGGACCTGTGACAGGGCTGGTAGCAGCGCAGAGGAAAGGCGGCTTTTAGCCAGG
TATTTCAAGTGTCTGTAGACAAGATGGAATCATCTCCATTTAATAGACGGCAATGGACCTC
ACTATCATTGAGGGTAACAAGCCAAAAAAGCTTTNTCTTGTAACANGAACAAGTCATCG
GCTATTGTGGAATATTCTCCAAGTACCT

Sequence 2639

GGCGAATTGGANCTCCCCGCGGTGGCGGGCCGAGGTACANAGTGCTTTTCTGTTTAGTTTT
TACTTTTTTTGTTTTGTTTTTAAAGATGAAATAAAGACCCAGGGGGAGAATGGGTGTT
GTATGGGGAGGCAAGTGTGGGGGGTCTTCTCCACACCCACTTTGTCCATTGCAAATAT
ATTTTGAAAACNGCTCNTTTTAATTCTGATTGATCAGCCAAAACNGTCCCTGCCCGGGC
GGCCGCTCTANAATA

Sequence 2640

ATCGACTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGGCCGCCCGGGCAGGTACGTG
AAGGTGAGAGAAAAGCTGCCAAGCTGCATTTTAGTCAGTTGGGCAACAGTGAAAATTTTC
TTTAGAGGTGGAAAAAGCCTCTCTAGTGACCTGGGTAGTTTGACGGTTTGGCTGG
AAACCACAGTCCCCCATCTCTGCCAGAACCCCCCATGTGGCCACTGTCTCAGACAGCT
CCTGGAGCTTGTGGATAAGCACTGGAATGGCTCCGGCTCCCTCCTCAACAAGAAGTT
TCTCGGAAAGTTTGAAGCAAAAAGTGTGAGAGTGTGGAGGAAAACCTCATTTTGTGAG
AAAAAATTCAACAGTTGGAGGAAGGTGCTGCCATCTCAATTGTGAGTGGGCAACAGTCAC
ATACTTATGATGATCTTCTGCACAAAAACCAACAGCTGACCATGCANGTGGCTTGCC

Sequence 2641

CGAATTGGTTTTCCCCGNGGTGGCGGGCCGCCCGGGCAGGTACCAAAGGTGCAATTTATGA
CTCCAGAAGGANTTCAAAACACATCGGAATCATGACAGCAAGATAACCCCAAGACAGTCT

Table 1

TTTATCAAGTTTTGACGGTTTATGCTGGGCACTGCCAGACTGAACCAGAGCTGGAACACA
ATAATGTTTCGAGCGGNCCGCCCGCCAGGTACTNNNNNTTTTTNTTTNTTTTGGATAA
TACTGTTTATTGTCCACGGACCGAGCGATTGCTCAAGAATGATNCAAAGCATCAGAGACA
TGCNAGCTCTGCTTGCTCAACTTTCAACAACCTCTTGTTGTGTTCCAGCACCGGAAGGCCTC
AGACTTCATATTCCAGCATAAACACAGTGCTCCCTCCCCCAAANTCCAAACGGAAACA
AAATCAACAGAGCTT

Sequence 2642

CTTACTTCACTATAGGGGGCCGAAATTGGGTAGCTCCACCGCGGGTGGGGCGGGCCGCC
GGGGCAGGGTTACGCGGGGGGGGGAATTTGGGGTNGGGCCATTACCCCACTTCCAAGC
AACAAACCAAGGAAAGCCATTGAAGGGTTTTCAATGGAACCTCTTCTTCTTCCCTTGA
ACANGGCTTCTTNGGGCANGGGAAGCCCTNNGGTTCTTGGTNCCTTANTGGAATCCNAG
AAANGGGCCCGNCTTTTTTGNCCCCAAAGGGAANTCGGGGGGGGAAAACCCCTTTNGGC
CNTTGAAAAACNNTTAAACCAANCCTTAAAAAAGNNGGGGAAAAAATTTNCCNNGGTTT
NAAAAAANCCNCCAAAGGGGTTTTAAACCCCAAAACCAACNNGGNACCCCAAAAAGAC
CCCCAAGGGGAAAGGACACNAAAGAAATCTCCAAGCCCTTTTTTGGGGGAAAAAAA
AAGGGGCCNTTATTAACNNGNGGAGGGCCAAAAAAGGCCNTTGTGGNNGG
GGGGGGGGAACCTTTTNGGGGAAAAAACCCTTTTTGGGGAAAA

Sequence 2643

[illegible]

Sequence 2644

AACACTTTTTAGGGCGAATTGGAGCTTACCGCGGTGGCGGCCGAGGTACGCGGGGACACC
CTAGATCCCAAGATCTCCAAGGATTTGGTGGCATACCCACTCCAGCACACAGAAGCATGA
GGTTCATGACTCTCCTCTT

Sequence 2645

[illegible]

Sequence 2646

CCGCGGTGGCGGCTCGCCCGGGCAGGTACATAGACCCAGCCCAAGGTTGGCCTTTGGGGT
CTGATAGCATTACAGAGCAGGAGATTACCCCTTGAAGCAATTGAATGTGTAAACTCTG
AGAGCAGACACTGACAATGCAATGCCTGCATACCTGACTCCTGGGCTGCCTTCCTTCTCA
GCAGAGCCCACTGAAAGTCTCACGTGTGCCTTTAACCAATGAGGATGGCAGGCCTTATCT
GTGTTGAAGTGGACAGGTCATTGCTACCCCTGTTGGAGAAGCTATGTAAGAAGGAGTAG
GCTGGCTTCTGGTCTAGTTCGACTCATTCTTTATAGGGACATTCANAATGATGAGTTGG
CTAAAATTACTTTAAAGGGGAAATGTAAATACCTCTTCTTTTCTATCCCTTCTTC
CTTTCCCATCTGAGCCCTCTGGCAAGGCCTGTTGCAGCTCAAGAAGTTTTTGGTCAGAT
TACAAAGTTACCAAAATGGTCAACAGGAAGGACCCACAAGCAGATTCCAAAACTCTTTC
ATTCACCTGAAGTTAAACTGAAATGGC

Sequence 2647

Table 1

CACCGCGGTGGCCGGCCGCCGGGCAGGTACGCGGGGGCCTCACAGATGATGACTTTCTT
CATCTTCTTGCTCTTTTTCCCATCCTTCACCGGGGTCTTGTGCACCCTGGCCATCACCAT
CTGGAGATTGAAGCCTTCANCTGACTGTGGCCCTTTTCGAGGTCTGCCTCTCTTCATTCA
CTCCATCTACAGCTGGATCGACACCCTAAGTACCTNGGCCCGCTCTAGAACTA

Sequence 2648

CGCCCGGGCAGGTACACATGGGGTTTCACCATGTTGGTCAGGATGGTCTCGAACTTCAGA
CCTCAGGTGATCCGCCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACC
NNACCCAGCCAGTTAATTTTTCTATTAACACAGACCTANTTAANATTGAGGCAAAAANAA
ATGGGTCTTGGGATTTGAAAATTACTATNCANTTTGGAAGTTNAATTTGCAACATANAT
TGTCTGTTATTAATAATTACTAGATATAATATCNCATAGGTGGAAAGAAAGGTTGCTTAATT
AAAGATCTAAGTTACTAGTCATGGTGTGAGATATNGANAATGATTGAANGTTATNAAGAN
TCNCACACCAGATGAGTAAATTGNTGTTTTCNNGAAGAAGTTACATNAANGTNACCGGAG
TATATTTTCAGCATTTTTTGNTANATTAATAAATTTGTNAAGCTATTTTCAATTTTCAGGGA
AATACTCTTAACNAANTTTACCGGGTAAATGACCAAATTCAGGTTAATTTTCACATG
TTAACACCCTCCTTGAGCCCCCTTATTTTTTAAAGCTCTTNAATNTATTTTGGNCCTGA
AATTAACNTTTCTTTTAAGGAAGAATTTNAAAAATTTTTTGAAGAAAGTTGGAAAT
CNTGGAANAGGCCCTGGTTATNGTTTTTCAAAAT

Sequence 2649

GGCGAATNGGAGCTCCACCCGCGGTGGCGGCCCGCCCGGGCAGGTACTTTTTTTTTNTNT
TTTGTNTNTTTTTTGGAGGACTGGGAAATAGAGGACTGGNAATTTGAGCAAATNTGAG
GAATCTTAAATTCCTATTAGGACACCAATATGACGCATCAATNAATCATTATTT

Sequence 2650

GNAGCTCCACCGCGGTGGCGGCCCGAGGTACGCGGGGAGTCTTGGTTTTCTGCTAGTGCT
GCTGCTGGGAGGACGACGGACGGCAGCGGCCAAGCAAGAAGAAAGACGTGGCAGCAAGCG
GGAGTCGGGGATAGTGTATCGGTTCCGGTAAAGTTTCTGTTCTCTGATTTGGGGATATTC
CCTGCCCAAAAAAAAAAAAAAAAAAANGTCCCTGCCCG

Sequence 2651

ACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACGCGGGT
ATGATTGTATATGTGTTACTCCGATATGTAATCCATTTCACTGGCTGAGTTTGGCCCTA
GCCATGTGTTAATAAAGTAGGCATGGCTTCCCAATGGAAATCTCTGAGAATGACAGTG
GAGTTGTGCAAGCATTTTACATTGCCACATAAATCGAATTTGGCCATTTTATGGTTAAAA
ACGGCACATTTAGGCAGTTGAATATGACCGTTACCTTGCAGACTAAAAGGTTGAAGGCCG
GAACTAATCTTTAGCTAACAATAAGGGCTGTGCCCAATGGAACTGAGTTTCATTTTT
CTGAGAAAGGTTTGGATTGACNTGAAATATTTCTCTACAGGTCAAGGGACTTTGGCAT
GTGGTGGCTGAAAATGAGCTTTTTTTGTGT

Sequence 2652

CGACTNCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGATGTTT
GCCACTTTGCAAAGGAGCTCACTGTGGTGTCTGTGTTCCAACCACTGAATCTGGACCCCA
TCTGCGAATAAGCCATTCTGACTCATATCCCCTATTTAACAGGGTCTCTAGTGCTGTGAA
AAAAAATGCTGAACATTGCATATAACTTATATTTGTAAGAAAATACTGTACCTGCCCG

Sequence 2653

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACTTCCGAAGATGGGCTTGT
ATCTGGTTTCGGACGGACTGTTAATGACAATTTGATCGACGGGAATTGCACACCCANAA
TCCACCACAAAAGAAAAGGTTACAAATTTAACAATTTATAGTCCTTTTAAAGTTTTTT
TTTTTTTCATAATACTACTGAGGGGAATTGGTNAGAATGTATNNATGTAAGGCNTTCTTA
ATTTAAGTTATTAAGTTTACATTTTTAATATTTTAAACCTTTTGTAAATGCTTGGCTT
AATTAGAAAATGTTTACAGAAAAGTAAAAAATCTAGTAATATGGGAAATCCTTGTAA
CAGCATGGTTTCAGAAAAATCTCAAGATGATTTATTTACCAAATTGAGTNTTTTTTAA

0

Table 1

[illegible]

Sequence 2655
CCGGGCAGGTACTCTNTTTTTTTTTNTTTNTTTAGGCAGNTNAAATCTAGGATGGTGTT
AACCTTGCTTCATTTNGCCAATNATATNTNAAAAATNANAAACNACATTGAATCTGCAT
TTCTTGGANNAGANNGTNNATAACAACTATTTCTCAATATTNNGATACTANAACTAGN
GAAGNGNCAATGGGNTCCAGCNTCTTATCTNTNATNTGAACATGGGTTTCTGAANGGAGC
CTATATNATAATATAAATGGTNTGNNAAAATGAGGCACTAGCNTTGNCTGNNACTGCTA
TAAAAAAATNACCA

Sequence 2656
CCGGGCAGGTACTTTTTTTTTTTTTTTTTTTAGGCAGCTAAAATCTAGGATGGTGT
AAGTTTCTTCATTTTGTCAATTATATATAAAAAATTAGAAACAACATGAATCTGCATTTC
TTGGATGAGATAGTTAATAACAACTATTTCTCAATATTTGTATACTAAAACTAGTGAA
GGTGTATAGAGTTTTCAGTATCTTATCTCTTATTTGAACATCGGTTTCTGAAAGGAGCCT
ATATAATAATATAAATGGTATGTAGTAAATGAGGCACGTCTTGGCTGGGACTGCTATAA
AAAAATTACCATAGACCATTGACTAAACCACAAACATATACTTCTCACAGTTCTGGAAGT

[illegible]

Sequence 2658
CCGCGGTGGCGTCTACCTCATTGTCTAGCCTCCTGCTCCCCATTTTCCTCATTAGCATTCC
CGTTAGCAGGGGCGTCTCTTCCATTTTCTGCCTCTTCCACAACTTCCTTCTTCTCCTTTA
AGTCTTGGTGGTGATTCTGGAGCTGGTGTCTACGGCTGCGTCTGACCCCGCGTACCTCG
GCCGCTCTAAGAATAAGTGGATCCCCCGGGCTGCAGGAAATTCGATATCAAAGCTTAT
CGATACCGTCGACCTCTGAG

Sequence 2659
CCCCGCGGTGGCGGCCCGCCGGGCAGGTACGCGGGAGAGTTAGTTGATTTCAGTAGTTC
AACAAATGTCAGTATAAACCCATATTTTGCTTAGCCATATATTGCTCAATTCTGCCATCCT
TGGGACTGGCTTCATCCTCAGGCTAGTAGCAAAATGGTTGCGGTGATTCCAGGCATCATA
TCATATCCATAAATAACAACCTTCCAAAAGAAGAGGAAAAAGTATCTCTTCTGTGCCACTG
TTTTTGGATAGAGGAAACTTTCTACAAAACCTCTAGCAAACCTCTTTCCCATCTTTTTG
GCCAGAATTGGGTCATAGGCTAGTTCCTGAACCAGTCACCANTAAATAACCCTTAGGTTA
ATCACGTTTCTCAATCTGGAATGGTGTGGCTTCTACTGAGGTATATGGTTGTATTGGGG
AGAGATTCTGTTAAAGAGGAAGAGGGAGAGAATTGATGCTAGGAAAGTAATTTGGAAAAAC
CATAACTCTCTCAGTGGTATTGGNTTNTCAATAAACAGTNTTAGCAAGTTATTTTTTA
CTTTTTCAAAA

Sequence 2660
TNGGAGCTCCCCGCGGTGGCGGCCGAGGTA

Table 1

TTTTTGTAGAGGGACTCTCGCCCTGTCACCCAGGCTGGAGTGCAATGGCACCATATTGGC
TCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTTTCTGCCTCAGCCTCCTGAGTAAC
AAGGANTAACCAGGCATGNGCCACCACNCCCAGCTAATTTTTTGTATTTTAGTAGAGG
CAGGATTTACCATGTTGTTCAAGTTGGTCTCAAGCTCTTGACCTCATGATCCATCTGCC
TCAGCCTCCCAAAGTGCTCGGATTACAGGCATGAGGCACTGCGCCAGCTGACTGATTTT
TTTTGGCTAAACACTTTTTAAGTAGATGATCTATTTTTTCCCCCGTTTATGTATGCAAT
ATCACCAGGAAAATTGTAACATACTCAATAATATGGGCTTTACAATTGGACAGACACTT
TATTTACG

Sequence 2661

AATTGGAGCTCCCCGCGGTGGCGGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTT
TTTTTTTTACTCTCCTGTTGCTTTTCTTCTTTCCCTTTTCAAGCATCTCCTCGTTT
ATTTTCTGTAACACANANTGCTGCAAAATAATGTTAGGGCTTTGCAGTTTATTCCTTG
CNATNTAACTGCNTNAATNTAAAAAGGGNCCTNACCATTANNNCNCGTTGGGGTTATTC
AAATAACCCAAGGGAATGTAAAGCGATTTCATATCTCCTTGAATCAGGAACATTAATTA
TCATATTGATGAGAAATGCAACCGTTTTTATTTACCAGGGCAAGAGGCTGCCAANATCTT
TCTGAGTTTAANAAATTGCANACTCTGNGGGAGGGGAGGGGAAAAATTNATTTAGTTNTTA
AATTGGAGGGGG

Sequence 2662

GCCGAGGCACCTTTTTTTTTTTTTTTTTTTTTTTNGGGGGGATGGGTATNTNCCATGTNAT
ACCAACAGNTCATNAACTCCTGGGCATAANCCAGCCTCCACCAACATCACTAACTTAAT
CANAGCACCAAGTGTCACATATGGTAACACANTCACAACCTCCCANGAATTNAAATTTTT
GGANNAGGTNGTACATTTTTTTNTGGGNCCTTTNTTTAATTCNTTNAACCCCTTACTNN
NAGGATCTTGGACCCAACAAAANAAAAAATTGGGCAGCCCAACACTTNTTTTNTCTCC
CTTTCCTTTTCTTTTAA

Sequence 2663

CCGCGGTGGCGGCCCGAGGGTACAACAACAAAGTCTGCCACCTTCTTGTGTGCACCTCT
GTGATCAGAAGTAGCAATCAGTGATCGGATGCAGATCTCTAATATTTGGAAGACAACATC
CTTTTGGCCACCCTGGAGCCCATAGGCTGCATGCAAGTTTCTCCAAGAACTGGGGGATG
GGTAGCTGCTACCGTTTTAAGAGCTAAAATTTAAATTTGCTTTTACCTTATACCT
TCCCTTGGAAATTTGCAAGCTTACAGTAGACTCCAGAGTTGCAAAAATAGTTACATTAGGC
AGATTTTGCCAGTATAATTGTTGTCTAGGAGCACGGCCAGACTCCTGGTGCTTCTACCC
TTCCATCTTCCCCAACCGCTAGTTATTGAACTTACTTTAATACAGGAATGTAAGCAGTT
TACTTTGTGTTTTTCATTTTCATCACTTATGAATAACTCAGCTAGTGAAAACTTCTTA
GAGTAAATCATTTTCTTCAAAATAATGTTGACATTGCTCTGTTGAAATCTAGTGTTTA
TTTCAGAGAAAAGTCTGCGGCCAGTTGATTTTTATTTCTTTTCAGATTACCTGGCTCTAA
AGATCTGGGATGCTTTAAATCTTTTCTTTTAAATCAAATAACCCATGAAAATATCTTGG
GTGTGCCCGGTACCTGNCCNGGCGGGCCGNTCT

Sequence 2664

TATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGNCCGGNCGGTACGCGGGGGGAGA
TGCTGNCACCTANGTNACTTGNAGGACCCTATACNGCAACCTCCTTTGCCAGGAACATTT
TATAACATCCTGCANGAAAATGANTCAAGGAAGCTTTTCTTTGAGCTATTTACAGCTT
NTAGCAATTGAGTAAAGTATACTCCTGTGAACAAAATNNTGGAACATATNNGTNNTCTC
TAACTGATTNCTCCANAATTTGGAAGTAGTTCAGNGAANTNNAAGAGACAGGGATATCCC
ACNAGGTTATGCAAAACATCAAGAGAAGATGANAGGTCAGANATGGGAAGAAACAAGAAC
TTTGACATGCTTGGTGTNCTTGCCCAAGCTTTGAAGAAGTTACAAAGTCTATATGTCAG
AATACACATTTCCC

Sequence 2665

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACCAATGTGT
GGCAGTCCAAAATTACGAGGAAAATGAGTTCCTTCATGGGTCACATCAGCAATTTTTTT

Table 1

TTCCCTTTTGAGACAGAGTCTTGCTCTGCTGCCAGGTTGGAGTGCACTGAGACCCCGT
CCCCAAAAAAAAAAAAAAAAATGCAAGTCTGGAAAAATATAGCTNGGGAGTCAGTAATGCC
AGTTTTAGCTGAGGGAGTTAAGATCATTTAATCAGTGTTAAGGAAGAACTCAATAGTAG
TGACCACCAATACTTAAGGAAAAAGGATAAAGTACCTN

Sequence 2666

CCGCGGTGGCGGCCGCCCGGGCAGGTACTTGAAGTGTGACTAATGTGACCAAGGGAAGT
AATTTTAAATTTTATTTACTTTAAATTAATTTAACTGAAGATAGCGACATGTGGCCAGT
GGCTACCACATTGGATACAGCCTTAGATTCTCCAGACCAGACAACCTTCTGTGGCCTT
CCAANGTTGNAACAGCAAACCTCACACTGTGGGCAGCCAGGCCTGGAGTGGGGCCAGCAA
GCCGCATCCTGGGGTCAGGTCTGGCCAACTAATTATCTACTGTCTATGGTCACATTAGTG
CTACAATGGCAGCATCGAGCAGTTGCAACAGAGATGGTGTGGCCTGCAAACTGAAAATA
TTCATATTTACTATCTGGCCCTTTACAGAAAAACATGCTGACCCCTGCACTACAGCAATT
AGTTTTGGAGAGAACATTCTGATAAAAGCTTACATCTTCTCTCA

Sequence 2667

CGACTACTATAGGGGCGAATTGGGAGCTCCCCGCGGTGGCCCGGCCCGGCCCGGGCAGGT
ACAATCTCTGGCCCTACATTTTCTAAATGTTATGCCACCCCGACCAAGGGGCAACTCCTA
CAAAGCCAGGCAAATAATAAAATCATATTTGTCTCTAGTGGAATGGATAACTATGCCTA
AACTGTGCCCTTTGAAAAGCAACTAGAGAGATAATTTCTGAAGTGTTTGTCCCTACCTG
AATGTGTGGCAAAATTCTAACTCCCTGAAGTGTGAAAGTGGTTTCCAAGCCACATGCAC
ATCCAGTAGTGGTAAAGGGTGAAAATCTAACTGGCTAAGAGGGCTTCATAGCAACATTAA
CCAAAAAGTGGTTTATGTAGTCTTGCCTGCTTCATAATCCCTANGCATTCTATGCTAT
TCTGCACCT

Sequence 2668

CGCCCGGGCAGGTACATCCAAATTGGGCTACGAAAAGTGGCAAGTTTGATTGTAGCATCA
TGTCTTTGAGTGTCTATTGGACTACAGATTAGAGGATAATAAAGAACATTCAATTGAGG
TTTCATTGTTTGCAGAACTTTCAACGAAATGCTTCAAAGAGATTTTGGTGTCCGTATAT
ACAAATCATTACTGTCTCTTCCCTGAGAAAAGAGGACAAAAAAGAAAAGGATAAAAAAGCA
AAAAAGATGAGAGAAAANGATNAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAANGTCAAC
GTTAAGAAGTTGAGCTTTTATCTTAGAGGCAGCAGAAGGTTTGGAGCCAAGGAATGAAAT
GATGAGGCGTCCTTCAGGTAATGAACTTCAGCTGCAGTGTGAAAGGGGCAGGAAGACTGG
CAGCTGTCAAACTGGAACAGTCCAGTGAGTATGTNCAGGCCCGGGCTTGGGCAGTGACC
ANGGCAGGGAGCACCATCAATTTCTGCGGTAGAACCTTCTAGAGGAAGACCANACAGAGG
GTCAACAAGAGTTGAAAGGAGAAAAATATTGAGGATGANGTCCAAGTTTTTAGTTTCAA
ANACTAGGCATATGGGTAATNCCGCGTCTTGGCCGTTNTANAAGTAGGGATCCNCGGGC
CTGAGGAATTCGATATCAAGCTTATTGATCCCGCCANCTCAGGGGGG

Sequence 2669

TCACTATAGGGCGAATTGGGAGCTCCCCGCGGTGGCGGCCCGAGGTACCTGAAAGTGACG
GGGAGAATGGAACCAAGTTGGAAAACACTTTGCAGGATATTATCCAGGAGAACTTCCCCA
ATCTAGCAAGGCAGGCCAACATTCAAATTCAGGAAATACAGAGAAGCTGCAAAGATACT
CCTTGAGAAGAGCAACTCCAAGACACATAATTGTGAGATTACCAAAGTTGAAATGAGGA
AAAAATGTCAAGGGCAGCCAGAGAGAAAGGTCGGGTTACCCACAAAGGGAAGCCCATCAG
ACTAACAGCTGATGTCTCGGCAGAAACGCTACAAGCCAGAAGAGAGTGGGGGCCAATATT
CAACATTCTTAAAGAAAAGAATTTTCAACCCAGAATTTATATCCAGCCAACTAAGCTT
CATAAGTGAAGGAGAAATAAAATACTTTACAGACAAGCAAATGCTGAGAGATTTGTCAA
CAACATTTGAATATTATAACCTGCAGGGGTCTGTCTGCAGATGGTTGAGACCATAACCA
GATACTGATATTCAGTGAAAGAGCAGCAAGGATTTCCGAGCTGATTACCAGACCCCAANG
GAAGATGCTTGTAAGAGCCCNCCAGCCACAGNCCTGGCTTGCTNGCCCTGGGGGCATTT
ATTTAGTAA

Sequence 2670

Table 1

AGGGGCGAATTGGGAGCCTCCACNCGCGGTGGGCGGCCCCGAGGTACTTTTTTTTTTTTT
TTTTTTNTTTTGGGCCTAATTGCTTTGGGCTGAAGACAGAGTGAGGCGATGTACTGTAAG
CGAACACCTTNTGCACAGCAAACCCGTNATTCGCTCACCTGTNTGNNGTNAGGCTCTTG
TAGAGAGTGANCACTCACTANTAGTTTTTAATAATAAACANGTAACCAAAGTGAGATGA
AGGAACTATTTTTGGA

Sequence 2671

CCGCGGTGGCGGCCGAGGTACAAGGCATTTAGAGAAAGCTTTTTGATTCCATTCAATCCT
GGAAACCAACATGTTGAAGGGCCAGATTTTCCACCATTTATAGGGATGCAAACCTTTAGC
TCAGAGAGGTTAAATGACTTGCCAACAGTCACACAACCTAGCACTTAGAGGAACGGGAAGG
CTAACTCGGAGCTGATGCTGCAGCTTACACTCACTCCCCACTCCCACGCAACACAACTC
TTTCTAGGCAGCTTGAAGGTACCTGCCCGGGCGGCCGCTCGA

Sequence 2672

AGGTACAACGCCTGGAACGAGAAGCGCAGGGTCTACGAAGAATAGGGTGAAAAACCTCAG
AAGGGAAAACTCCAAACCAGTTGGGAGACTTGTGCAAAGGACTTTGCAGATTAAAAAAA
AAAAAAAAAAGCCTTTCTTCTCACAGGCATAAGACACAAATTATATATTGTTATGAAGC
ACTTTTTACCAACGGTCAGTTTTTACATTTTATAGCTGCGTGCGAAAGGCTTCCAGATGG
GAGACCCATCTCTCTTGTGCTCCAGACTTCATCACAGGCTGCTTTTTATCAAAAAGGGGG
AAAACCTCATGCCTTTCCTTTTTAAAAAATGCTTTTTTGTATTGTCCATACGTCACTATA
CATCTGAGCTTTATAAGCGCCCCGGGAGGAACAATGAGCTTGGTGGACACATTTTCATTGCA
GTGTTGCTCCATTCTAGCTTGGGAAGCTTCCGCTTAGAGGTCCTGGCGCCTCGGCACAG
CTGCACGGGCTCTCCTGGGCTTATGGCCGTCACAGCCTCAGTGGGACTCCCACAGNNGC
CCCTGTANCCCGGGGCAAGCAGGAACAGGGTCTTCTGCATCTGTTTTCTGGAGGAATC
AAGGTTTGGGTTGCCAGAAAAAATGTGCTTNATTCCCCCCTNGGT

Sequence 2673

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCCGGCCGCCCGGGCAGGTACTTTTTTT
TTTTTTTTTTTTTTTTTAGGNCGAATGCAGGGTTTTATTGAGTGGTGGAGGTGGTCT
CTGAAGGATGGATGCAGAGCTGGAAGCGGGGATGGCACGGGAAGATAATCTTCTGCTGG
GTGGCCAAACCTNTCCGACCACCTCGGCTGAACTCCTCTCGCGTTCAAATGTTCTCT
TCTCTCTTCTCTGCTGTATCGTTTCACCATTCATCTGCTTGTCTGGGATGGTGAANACA
ACTGTTTGCTCATTGCTTGGCGATAGGTGATTGTCTCGCCGCTCAGCTATAGGCGATGG
TCTCACCACCTCGGTGATAGGCGATTGTCCATCTAGGTCGCCAAAATGTGTCTGGAATTG
GTGGGTTCTTCGTCTCACTGACTTCAANA

Sequence 2674

CCGCGGTGGCGGCCGAGGTACAGGAGACTTTCTGATTTCCAATCTTGGCTCAGGTCAGAA
GAAAAAGGGGAAAGGTTACATTCTGGAAGAAAATACAGCCTATTTGAGGGCATGCCTG
ACTTTCAGTCCATGCACTAGTCCTCTTGGCTCGTAGAGTTTTAGTGCCCTGAAACCATG
ATCCCTCTGCCTCCATGGTCCTCTGAGTGTAGTTATTATGTCTGCAAACCAGTAATGTCA
CAAGTCAAAGGGTCTGGGGCTTCCCAGGGAACCACTATGACTGAGTATATTCTGATTGA
GAAACCTGTGACAAGTCTTCTCAGCACTCGCCTTCTAATTTTTGGAGCCGATGCCTGGGT
TCCCAGCATCCAGGTCACAGTAGCTGGAATCATGCAGGAAGGGCAAAAAGCCAGCAGCC
CAGAATGGACTGTCTCTGCAGCTCTGGCACATTCTCTACACATCGCCACACCACTCAAAT
GTCTATAAAATATCAAACCAATAACCTGGACATGACCCGATTAATCTGTACCTGCCCG
GGCCGGCCCCGCTCTAGAACTAGTGGGATCCCCCGGGGCTGCAGGAAATTCGATAT

Sequence 2675

CCGCGGTGGCGGCCGAGGTACTTCAGTTTCTCTAGATTACCATGTAAGACAGCTCTGTGG
ATCCTCTTCAGATGATACGGTTAATGGGGTATTGGGGAAATGCGAAGCCATCCGAGCAC
AAGCGCTCCATGAGGGTGGGCCACCTCTCCCGCTTGCCGTCTTCATAATCGTCGGCTGC
AAATTGTAGCCTGCAGCCGATTTTCAGCTCGCCTTCGGGGATCGCCGCCTCCGAAGAGCA
ACAACGAGCAAAGCAGTCTGTCCACGGACCTCCGCACAGACTCTCAGCGCCTCCCGCCTC

Table 1

TCAGCAGAAACGCCCAACAGAAGGGTTAGAACCAGCGAGCACGCGCACCTTAGCCGGCCC
TCCCCGCGTACCTGCCCGGGCGG

Sequence 2676

CCTGACGCTGGGAGGAGATGCTGCCACCTAGGTTACTNACTCGGTCCNNNTACGGCAACC
TCCTTTGCCAGGAACCTTTATAAACATCCTGCAGGAAATGAGTCTTATATGTCAAAAT
ACACATTTCCACACCTTTGCCANCNGTNNNAAAACNTAGGAAGGANGAAAAANCATTTA
AAAAATGACACNGGAATGTTAATGGAAGCAATGTGATGGTCGTTTTGGAGGTGGAACCTT
TTCAANAAAGGTAATTAAATGCCCTTGGTTAAGAAGAAGGCCAAAAGAAGCTTGCGCACC
TTTTTTCCTGCCATGTGAGGAAGCCAAANAAGCCGGCTGTCTGCAACCTGCAAGAGGACC
CTCACTAGAAAGCTAGCCATACTGGCATCCTCATCTTGGCTTTCCAA

Sequence 2677

CCGCGGTGGCGGCCGAAGGTAATCGGGGGCCAGTCTTTATACTGCTGACAGTAATAAATT
CCAAAATCTTCAGACTGCAGTCCACTGACGACGAGAGTGAAGTCTGTCCAGACCCAGAG
CCAATGAATCTGGCTGGGACACCAGTGGCCCTGGTGGATGCAGCAAAGACGAGGAGCCTG
GGAGCCTGGCCAGACTTCTGGTGGTACCTGCCCG

Sequence 2678

CTACTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCCGCCCGGGCAGGTACTTTTTT
TTCTAAGNCATTACTT
TTTTTTTTGAAGGATTTGNGAACTNTTCACATNATGGNGANAGTTTGTNTGATTAANAA
AAANCAGNTTTTTCATNAAATGCTTGGAGGNGAACNAGTTNTCACCCTGNGANANCCNAC
CNTCCCATTAACCTNGAAGTTTNTNTTGATTAATANAAAAAAGGGGAGGGNGAAAAA
AAGNGGAACATGCTAAAAACCTTNTGACAATCNTNCAAATGTCCCGCGTACCT

Sequence 2679

AGGTACTTAAGTGGGTTAGCCGAGGTGAGGAGGGTGGATGCCTTATTATGGGATTAGTG
CCCTTCTAAGAGGGACAGTAGAGGGCTTGTTTCATGCTCTCTCTCTCCATGCACAAGAAAG
AGCACACAGTGAGAAGGAAAGAGGCCCTCACCAGAACCTGACCATGCTGGCACCGTGATT
GCAGACTTCCAGCCTCCAGGATTGTGAGAAGATAAATATCTGTGGTTAAGTCACCAAGT
CTGTGGTGTGTTTTATGGCAGCACAAAGGTAACCCAGATGATGCTTTTCACCACTGGGTGG
TCCAGCCTTTCATGGAAGCTGTCAGCTCCTCAGCCTTGCAAAAAATGCTTGCTGGTCACT
CTCTTTGGTCCTTTCAGATGCCTTTCTTAGTGGTGCCTCTA

Sequence 2680

CCTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTCCATACAGTTTTTCTAAT
TTTCTAATTAAATGTAAGTATTGTGAATATTTCTCTTGGAATGATTACTTTTCTTTGG
AGTTTGATAGTGGTATAAACTGTTTATATTTGTATTCTATCAGGAAAGTATTACAGTAA
TGGAATAATTATAATTTTATTGAGTGCGTCTCCTCTTTTAATATGAATTTTGAGCAAGT
TTTTAGATTCAATTATATGAAGTGTCCATTTTGTAGGTAAAAGTAGTTGAAAAAGGTAA
TGATAGGTTCAACCTAATAACAGAAAAATCTAGCCTTAATTAGAAAAATAAGTCATAAA
GACAACTTTGTTTCAAATAAGGGGAAATACGATAGCAGTCATGAAAACTGAAGGATACA
AAGAGAATATTTAATTGGTAGCCATACAAAGTGGAGATATTTAGAACTATTTTCATTC
TCTAATATATTTGAGTCATTTTATTTTGGGTAAAAATAAATTATAGGTGGAGCATGGTGGC
TCACGCTGGTTATCCCAAAGCGCTGGGATTATAGGCCGTGAGCCCCGCACTCCTGGCCGA
AATCTGTTTTAAGTATAGAACATCATGAAATTGGAT

Sequence 2681

CCCGGCCGGGCAGGTACCATGGTTGGAATGATAAANGATATTGTCATTTTGTAGCANT
GAAGTGAGTGGCATCTATGATTTTTTAAGGTATATAATGAAATTGTGCCTAGGGGAGTN
ATAATNCACTCTATGTA

Sequence 2682

CGCGGGATGGAAAGAAATGAAGACANTTTTAGACNTGCTAGACTNATGGTTGACTATACA
NCAACCATCTCAGAAAGAGTTATTCAGATATAGCTTCANACTGATANNTAAATCATATA

Table 1

ANTAATGTGGTANTCAAAATANGAGTTANGTAACTACTGACANATATAAGGAAAGTCGTA
CCANTTCNGAACTAAAAACAATGGTCTATGTTGCTGGANGAACAAATGTGGGGAGGGT

Sequence 2683

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGCCGGGCAGGTACGCGGGGAAATG
AAATTGGAGCTGGACCATTTAGTCAGTTCATTAAAGCAAAAACCTCGGCCATTACCACCT
TGCCTCCTAGGCTAGAATGTGCTGCTGCTGGTCTCAGAGCCTGAAGCTAAAATGGGGAG
ACAGTAACTCCAAGACACATGCTGCTGAGGACATTGTGTACCT

Sequence 2684

CCGCGGTGGCGGCCGAGGTACTTTTTTTTTTTTTTTTTTTTTTTTNTCCACATCTTCA
CATTCTTTCTGAATAACAAGCCTAAGTCCCCTGACCTGATCACCTGTCAGGTGATCACC
TTGGCCATCACCTTGGCCTTTATTCACCTAGTGATGCTTCTCATAGTAATGGATTGTG
TCTCCANATGATTTGAGTCACTGCATTTTGAATGGACTTTAAGATGTAAAGNGTAA
TTCTACCTGAGCAGAAGTGACAAGGGGCCTTCCATNTGCACCCCCAGCC

Sequence 2685

CCGCGGTGGCGGCCGCCGGGCAGGTACTTTTTTTTTTTTTTTTTTTTTTGTAGACAGGG
TCTTGCTTTGCTGCCCAGGCTAGAGTGCACTGTCGCAATCTCAGCTCACCGCAACCTNTG
CCTCCCAGACTCAAACCATCCTACCCTTAATCTTCCAAGTAGCTGGGACTACGGGTGTGT
GCCATCATGTCCAGTTAATTTTTAAATTTTTGTANAGAACAAGGTCTNACTATGTTGCC
CAGGCTGGGTCTTAACTNCTGGGCTCAAGCAATNTGCCTGCCTCCTTCTCCCAAAATGC
TTGGGATTAGAGGCATGAGCCACAATACCTGGCCACTATGCAATTTGTATGATTTTTAA
ACGATAATTTTTTTTTTTTTTTTAAACAGAGTTTTGNTTTNTCNCAGGGCCANAAGNGC
AGNGGGCACAATCTCAGNTANACTGCAACTTCAAGCCTCCCAGGT

Sequence 2686

CTTAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGACGCGGGGAGCTACAACAGGC
AGGCAGGGGCGAGCAAGATGGTGTTCAGACCCAGGTCTTCATTTCTCTGTTGCTCTGGAT
CTCTGGTGCCCTACGGGGACATTGTGATGACCCAGTCTCCAGACTCCCTGGCTGTGTCTCT
GGGCGAGAGGGCCACCATCAACTGCAAGTCCAGCCAGAGTGTTTTTCCAAGTCCCAAC
TATAAGAACTTCTTTAGCTTGGTACCTGCCCCGGCGGC

Sequence 2687

CCGCGGTGGCGGCCGAGGTACTCGCGGGCCTTGGAGGGGGCCACCGACAGAGCTGACATC
ACCGTCATGATGCCTGCATTCCAGGAGTCACGGATGGGAAAGTAAATCTTTGGAGGGGCT
GGGAGCTGGGGTATCTGCAGGCCTGTCTGCTGACACACGTACTAGAATGTTGGCTATAAT
AGTTCTGTTCTTACAACACATGAAATTTTTTCGTTTTATTTTATTTTGTTCATAGTGC
ATGTTTCAATTTCTACTCACAAACATGTTCTTGGTGTATTTCTTATGCAAACAATCTTCAGG
CAGCAAAGATGTCCGTTACATCTAACTTGAATAATAAAGTTTTACCACCAGTTACACAT
NNAAAAAAAAAAAAAAAAANGTACCTGCCCC

Sequence 2688

AGGTACTTTGGCCTCTCTGGGATAGAAGTTATTGAGCAGGCACACAACAGAGGCAGTTCC
AGATTTCAACTGCTCATCAGATGGCGGGAAGATGAAGACAGATGGTGCANCCACAGTTCC
TGTGATCTCCAGCCTGGTCCCCTGGCCAAAAGTCCGAGGGATACTGCTACTCTGTTGACA
GTAGTAAGTTTNCAAAATCTTTCAGGTTGCAGAACTGCTTGATGGNGAAGAAGTAAATC
TGTCCCAGATNCACTGCCACTTAACTTTGATGGGGACCCNACTTTTGCAAACCTGGGAT
TGCANCNTAAGAATGAGGGAGTTAGGGGGGCCCTTCCCTGGTTCTTGCTGATNCCAAT
TTTAAATAGATATTAATGGACTTGACTTGCCCC

Sequence 2689

CTATAGGGCGAATTGGAGCTCCCCGCGGTGGCGGCCGAGGTACGCGGGGGTTGTATCNGG
ACTTATGGTGGCCACCAAATATGAAGTGAGTGTCTATGCTCTTAAGGACACTTNGACAAG
CACACCAGCTNATGGAGNTGNCNCCANTCTGGNNAANGCNGNCCACCAAGAAGGGCTNG
TGTGACAGATGCTACTGNNACCACCATCACCATTAGNTGGAGAACCAACACTGAGACCAT